NDVR system

USER'S GUIDE

Default
username: admin
password: 1

Contents

Chapter1 Start up and Main Interface 12

1.1 Preparation & Un-installation 12

1.1.1 Preparation 12

1.1.2 Un-installation 12

1.1.3 Search Tools 12

1.2 Disk management 14

1.3 Start up 17

1.4 Main Interface 18

1.4.1 Show tips 18

1.4.2 Screen menu 18

1.4.3 Interface description 23

1.4.4 System Menu 27

1.4.5 Network panel 38

1.4.6 PTZ Control panel 39

1.4.7 Color and Audio adjustment 43

1.4.8 Matrix & display *43*

1.4.9 Sensors / Relays Control *44*

Chapter2 Local setup 46

2.1 System setup 46

2.1.1 System setup *47*

2.1.2 Network setup *48*

2.1.3 Boot setup *51*

2.2 Camera setup 51

2.2.1 Camera setup *52*

2.2.2 Group setup *56*

2.3 Sensor setup 58

2.3.1 Sensor setup *58*

2.3.2 Group setup *59*

2.4 PTZ & Linkage setup 60

2.4.1 PTZ protocol setup *60*

2.4.2 Motion detection relay *61*

2.5 E-mail & SMS setup 63

2.5.1 EMAIL setup 65

2.5.2 SMS setup 66

2.6 Digital matrix setup 67

2.6.1 Matrix setup 67

2.6.2 Display setup 68

2.7 Password setup 69

2.7.1 User information 69

2.7.2 User right setup 70

Chapter3 IP Camera Setup 72

3.1 Functional buttons 72

3.2 Server setup 73

3.3 Channel setup 74

3.4 PTZ control 77

3.5 Sensor setup 79

3.6 Alarm setup 81

Chapter4 Playback 83

4.1 Main interface 83

4.2 Playback 84

4.2.1 Select date 84

4.2.2 Select Record type 85

4.2.3 Select camera 85

4.2.4 Select file 87

4.3 Play file and related operations 89

4.4 Capture picture 91

4.5 Backup 91

4.5.1 Create file clip 92

4.5.2 Backup by time 93

4.5.3 View Backup file 94

4.5.4 Burn video file to DVD/CD 95

4.6 Search captured picture 96

4.7 POS Playback 98

4.8 ACU Playback 99

4.9 ICON Playback 101

Chapter5 IE client 103

5.1 Functions of IE Client 103

5.2 Main interface 103

5.2.1 Connection operations 104

5.2.2 Connection/Record status 104

5.2.3 Partition mode 104

5.2.4 PTZ Control 105

5.2.5 Quit program 105

5.3 Local search 105

5.3.1 Display setup and data information 106

5.3.2 Playing operation area 106

5.4 Remote search 106

5.4.1 Fast download record data 107

Chapter6 Mobile Client 109

6.1 Recommended Mobile Phone Requirements 109

6.2 Download software 109

6.3 Install and connect 110

6.3.1 Installation 110

6.3.2 Connection 110

6.4 Login Interface 111

6.5 Camera List 111

6.6 PTZ control 112

Appendix A: Fast key reference 113

Appendix B: Audio preview 116

Appendix C: Driver Installation Manual 117

Insert Cards 117

Check whether the drivers are correct 117

Update the wrong drivers 118

In WIN7 119

Insert Cards and install drivers 119

Appendix D: How to use "Copy File" folder 121

Appendix E: Dual Monitor 122

Stretch Mode 122

Setting Steps 122

Display and Operation 124

Extend Mode 128

Setting Steps 128

Display and Operation 132

Appendix G: Sony Camera Setup 134

Introductions:

Thank you for purchasing our NDVR System. The operation manual will introduce and explain each function of the NDVR System for better user experience and system stability.

Users should read this manual thoroughly before installation.

System features

-Supports dual-monitor and multi-monitor in different work mode.

-Supports multiple WTE series cards in a single system.

-Supports multi-brand of mobile client.

-Supports 32bit Windows OS.

-Supports multi-brand of IP cameras, such as Mobotix, Sony, Acti, Arecontvision etc.

-H.264 compression for better quality at lower transmission bitrate and storage requirement.

-Web access through LAN or WAN

-Real time full-motion, video-capture & display (Up to 64 channel video input)

-Real time high-speed recording (Up to 30 fps per channel)

-Synchronous audio recording (optional)

-Motion detection (Whole area or up to 12 detection zones per channel)

-Normal recording (continuous) and event recording (Motion detection or external sensor)

-Electron Map pop-up on alarm

-System operation and alarm logs

-Pre-recording on Alarm

-Remote recording

- Automatic Alarm message and email notification with images attachment

-Matrix display and group display

-Duplex mode (Recording while playback)

-Network support (Remote access via LAN, Internet, PSTN, ISDN, ADSL)

-PTZ & speed dome control on keyboard

-Search/playback by date/time directory (random-access)

-Backup & burn CD directly

-Remote talk between server and client or server and server

-Support six types of resolution (1024*768 pixels, 1440*900 pixels, 1280*1024 pixels, 1280*768 pixels, 1680*1050 pixels and 1920*1080 pixels)

Important Information

For optimum system performance, it recommended to:

1) Please use Intel chipset motherboard and if using onboard video please use the Intel onboard video. If using external video card please use ATI Radeon video card. Contact tech support for the latest video card and motherboard support.
2) Divide the hard disk into two partitions (e.g.: C and D) and use the first partition for Windows OS and the second for video recording. Or use 2 separate hard disk for the Windows OS and recording.
3) Please plug the NDVR system behind a UPS battery backup to help prolong the life cycle of the system.
4) Protect the system from direct sunlight, moisture and dust.

Chapter1 **Start up and Main Interface**

1.1 Preparation & Un-installation

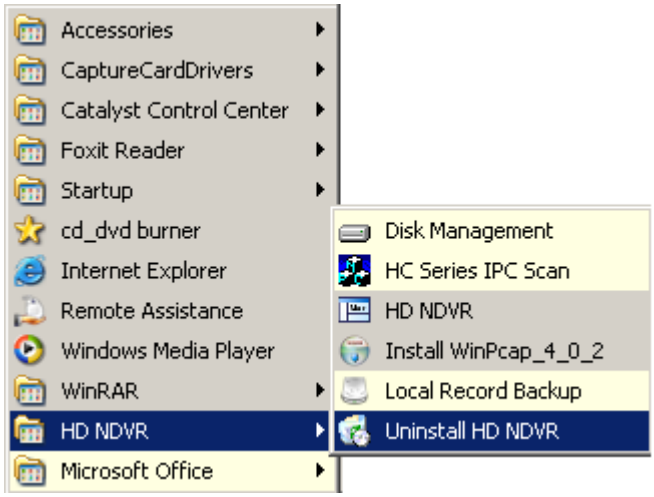
1.1.1 Preparation

Before starting NDVR system, please be make sure to:

1. All connectors are firmly connected.
2. The NDVR properly seated.
3. The monitor resolution supports 1024*768 or higher.

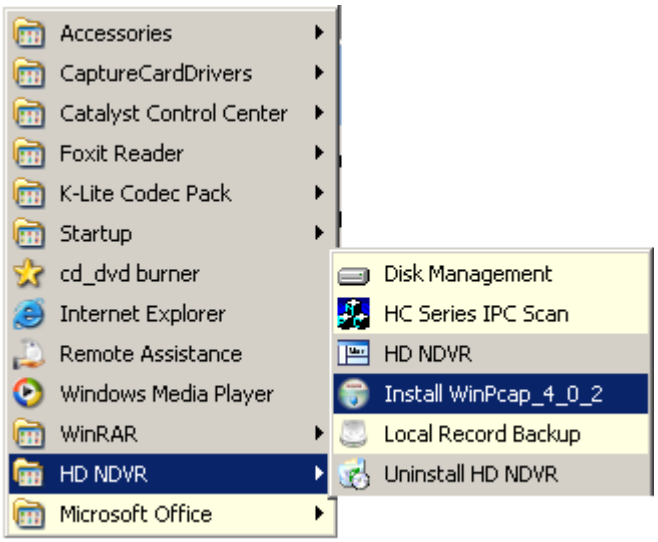
1.1.2 Un-installation

When changing version, always uninstall the older version. Click “Start→ All programs→ HD NDVR server→ Uninstall HD NDVR” to uninstall HD NDVR.

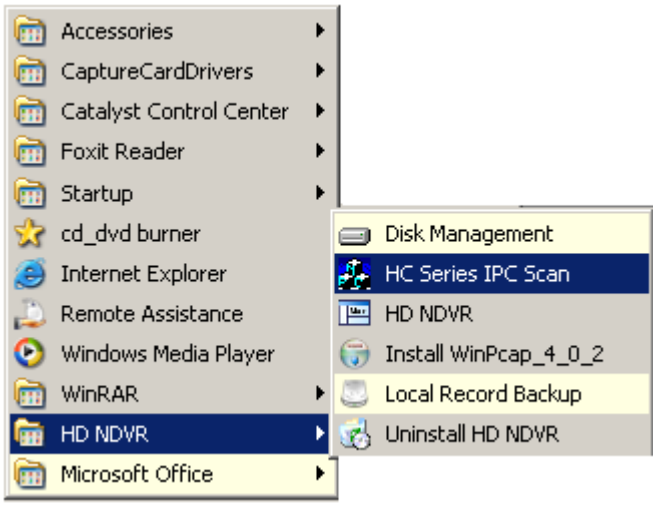


1.1.3 Search Tools

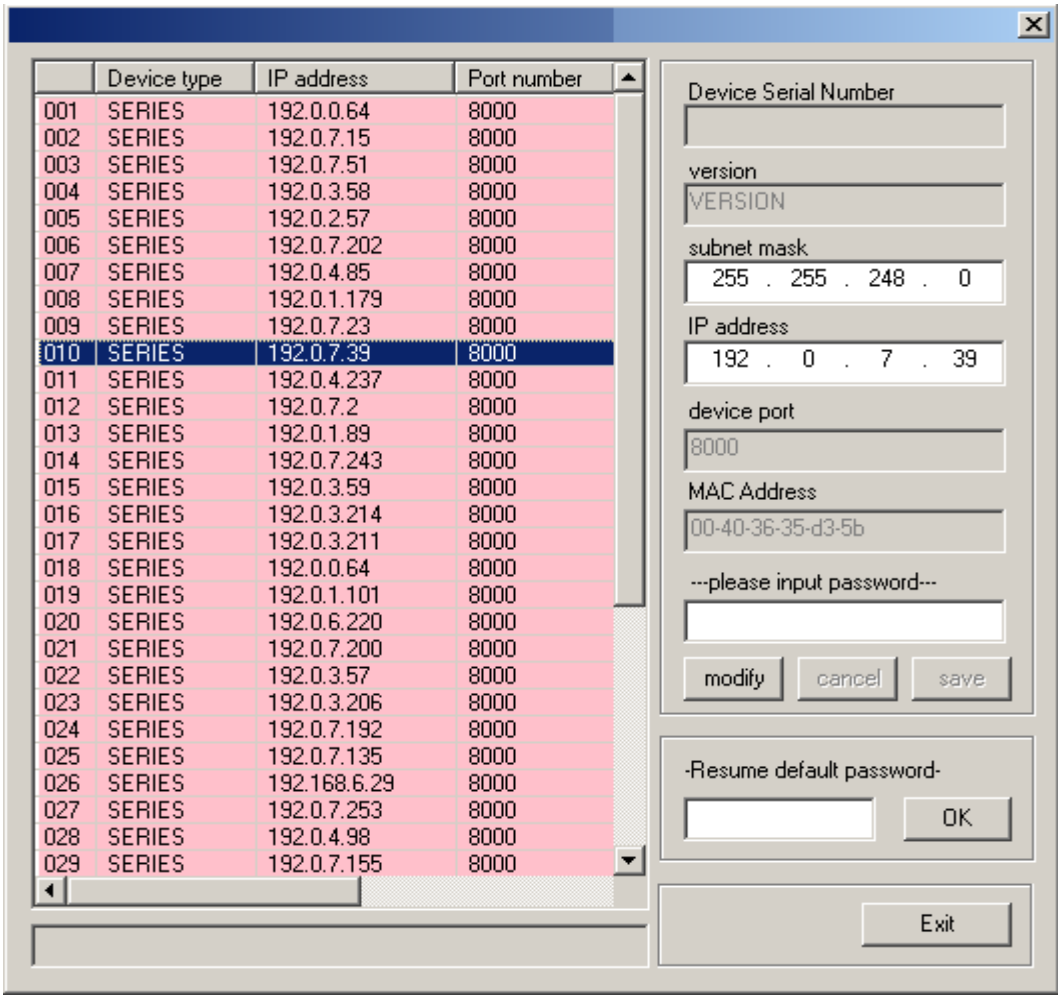
Click Start→ All programs→ HD NDVR Server→ Install WinPcap_4_0_2 to install the HC series IPC scan tool.



Click Start→ All programs→ HD NDVR Server→ HC Series IPC Scan to scan HC series IP cameras connected in the LAN.



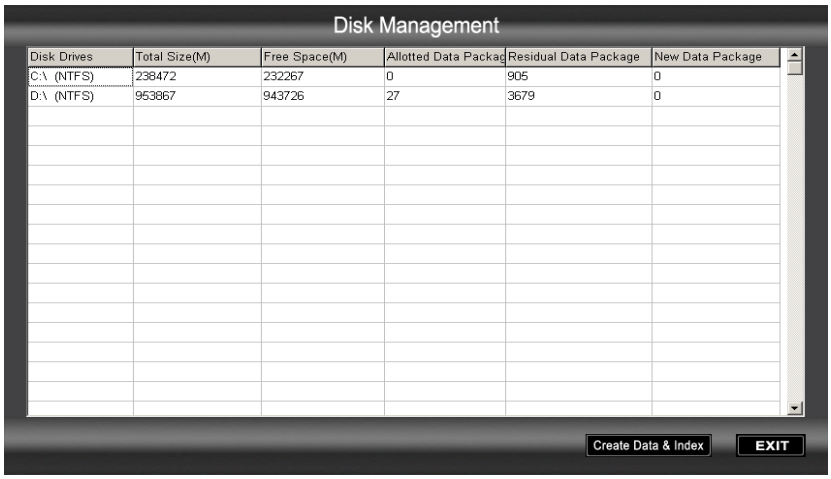
Device type, IP address, Port number, Device Serial No., subnet mask, and mac address will be displayed in the search tool. Click Modify to edit the IP address and port.



1.2 Disk management

After installing NDVR Server, assign space for recording otherwise software can't record. Disk management will also run automatically after the NDVR Server installation.

If Local Password is enabled, a proper user name and password is required to access Disk Management.



【Disk Drives】 : Display the disk and its format.

【Total Size (M) 】 : Display the total size of the disk.

【Free Space (M) 】: Display the total free space of the disk, which is the maximum space can be assigned for recording.

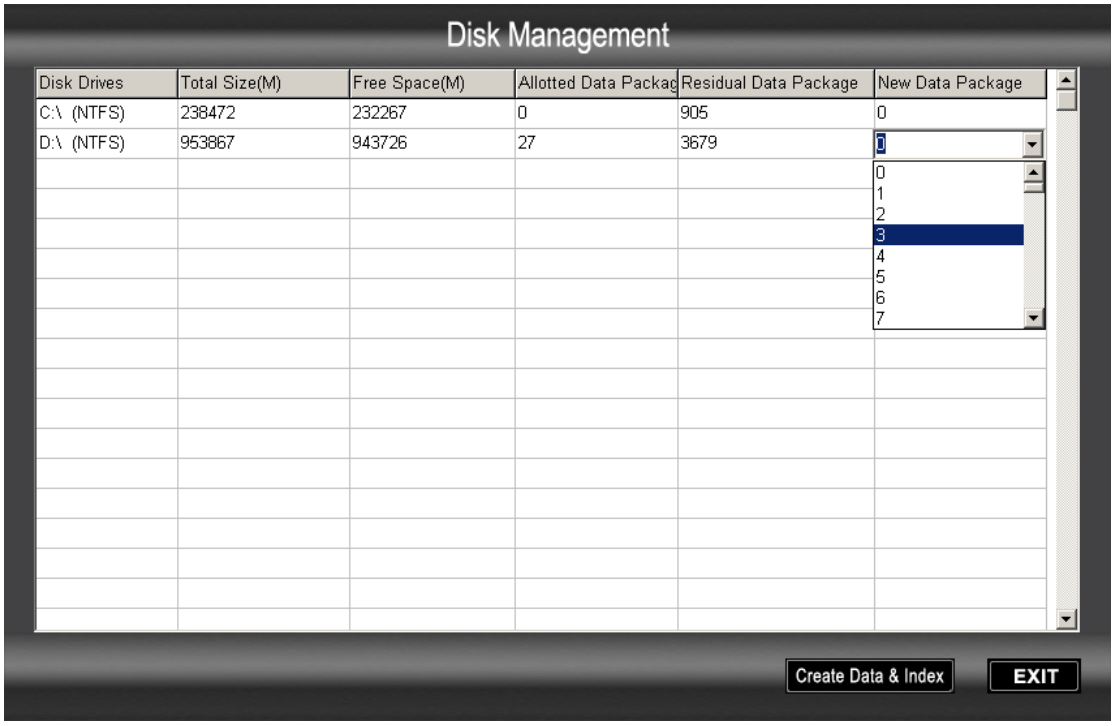
【Allotted Data Package】: Display the number of data package, which has been assigned for recording before.

【Residual Data Package】: Display the number of data package that can be assigned for recording.

【Residual Data Package】 = 【Free Space (M) 】/256

【New Data Package】: Select the number of the data package that is needed for recording.

【New Data Package】 ≤ 【Residual Data Package】



User can also select the number of data package for each disk in the drop-down list. After assigning the New Data Package, press

button to create data package and index for recording.

Note:

1) Please format the whole disk thoroughly before using it as a recording drive.
2) Each package for recording (***Recdata****.mp4***) is 256MB and it is associated with its index file (***RecIndex****.inx***). Both file must exist for the system to work or the user can't playback recording data correctly. Also, user can't modify them unless deleting them together manually.
3) By default, disk C are used for system application, so our software will not use it (default: 【New Data Package】= 0) unless you change it.
4) Since windows will pop up information to warn when the disk has low space, by default, our software will leave 3 packages (about 256*3=768 MB) for disks (except C and D) to avoid that information. That is to say, the default value of disks (except C):

   【New Data Package】 = 【Residual Data Package】-3

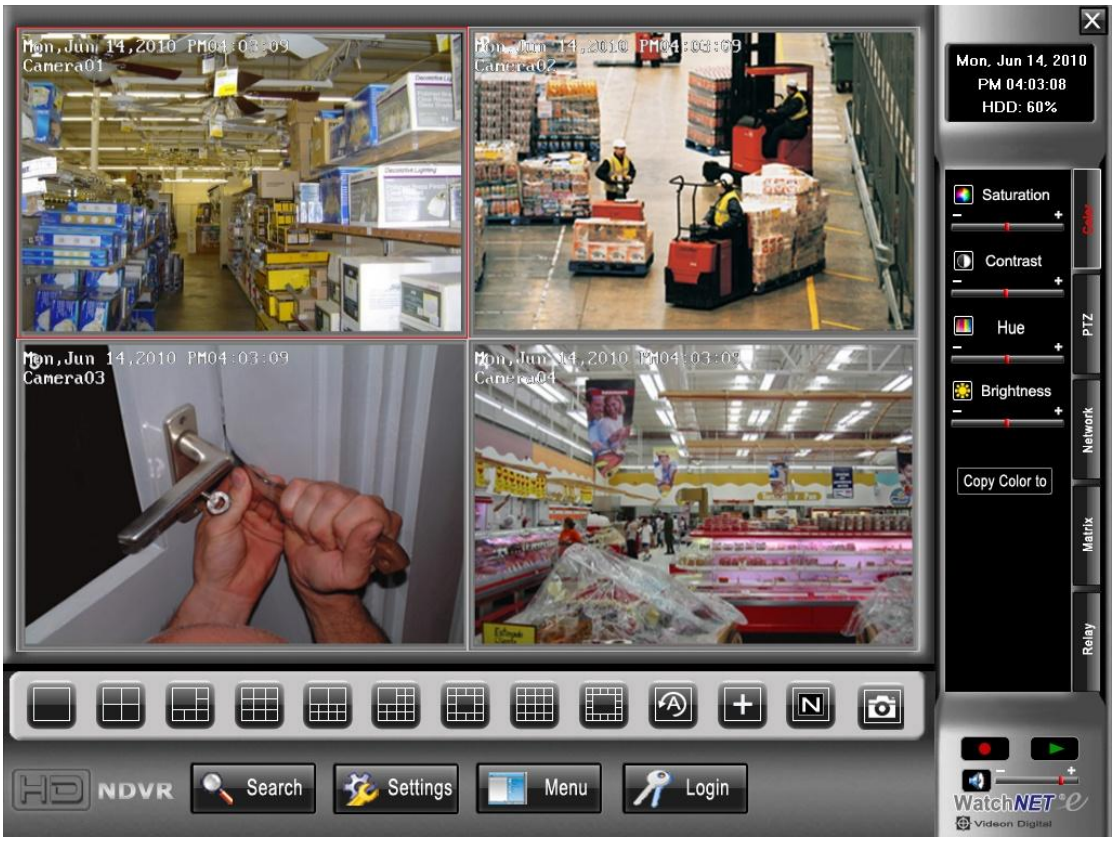
5) Software will cost much more time to create data package and index for FAT32 system than that for NTFS.

6) After the data package created, user can't delete the data package through disk manager, user just can delete them manually, and it is better to delete the whole folder "_RECORD_DATA_" under each disk. After that, the space of the disk will be released; user can assign them for recording again.

1.3 Start up

Double click shortcut icon

to run HD NDVR Server. The main interface is as below:



Note:

1) When user run the HD NDVR Server without a valid license for compression cards or IP products, system will pop up a dialog box to inform you. System will work under trial version; if you want to use full version, please contact your supplier.
2) NDVR Server supports several different size of main interface: 1024*768, 1280*768, 1440*900, 1280*1024, 1680*1050 and

1920*1080. When you want to run NDVR, the resolution should be set as 1024*768 at least.

1.4 Main Interface

1.4.1 Show tips

1. When the mouse moves closely or stops above a button, a text tip will be shown to interpret the function of it immediately.

2. Zoom in/out video image: Left-Double-Click a camera window to zoom in/out video image (or press **F11** on the keyboard).

3. System will detect cards and read the total channel automatically, and the corresponding number will be displayed dynamically.

4. Recording status:

--The icon means the system is recording continuously;

-- This icon means the system is recording manually.

-- This icon means the system is recording in motion detection.

-- This icon means the system is recording in sensor detection.

1.4.2 Screen menu

After user enable keyboard shortcut, you can press **TAB** key or **Page Down** (select next camera window) and **Page UP** (select previous camera window) key on keyboard to select a window.

Users can Single-Right-Click image area (compression card camera windows, IP product camera windows and unused windows) to popup the screen menu as below:

1. Full screen

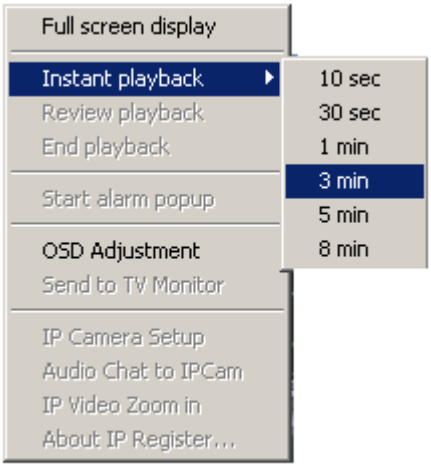
User can Single-Right-Click image area to popup the screen menu, then select “**Full Screen Display**” to view image area in full screen (or press **F12** on the keyboard). When you want to restore, you should Single-Right-Click image area and select “**Restore Display**”.

Besides, user can Double-Left-Click a selected window to enlarge it. You can restore it by the same way. You can also press F11 on the keyboard to do the same operations.

2. Instant playback

Single-Right-Click desired camera window and select ***Instant playback*** (IP cameras included). After that, choose a time from the submenu, and then system will play back video data of current camera in current window according to your selection (E.g.: you select 1min, system will play back previous 1 minute video data of current camera in current window). Also, you can play back video data of one current live camera in a window that is not used by any cameras (always black background with no “Video Loss” information): Select a window, and then Single-Right-Click it to select “Instant playback”. Finally, choose a time and the camera you want to playback, and then system will play back video data in current window according to your selection.

The window that is playing back video data will indicate a yellow border to be different from the live windows.



In the course of the instant playback, you can press **Space** key to switch the **play/pause** status or direction key → and ← to play next and previous frame.

Single-Right-Click the playing back window and select **End playback** to stop instant playback.

While instant playback is in processing, if you want to play it again, select ***Review playback*** function. Press Space key to switch the play/pause status or direction. In pause status, you can press key → and ← to play next and

previous frame. When the screen plays, you can press ↑ and ↓ to control the speed of playing, also, in play status you can press → and ← to play in normal speed and play it again.

3. Alarm popup

Single-Right-Click video image area in main interface and select “Start alarm popup” after you set “Alarm camera popup interval” in system setup, otherwise, it can’t be selected with gray. After that when there is a motion detection alarm (set in PTZ & Linkage setup and Motion detection setup) or an alarm triggered by sensor (set in Sensor setup), system will display alarm cameras in sequence. When you want to end this function, you can Single-Right-Click video image area and select “Pause alarm popup”.

4. Auto Tracking for PTZ

This function is only available to intelligence PTZ.

5. OSD Adjustment

Single-Right-Click video image area in main interface and select “OSD Adjustment” to adjust the position of OSD (IP Camera does not have this function; you can set the OSD position in IP Camera setup remotely).

OSD includes time and channel name. You can drag time or channel name to where you want directly in screen, then press

button to save it or press

button to resume time and channel name to default position.

6. IP Camera setup

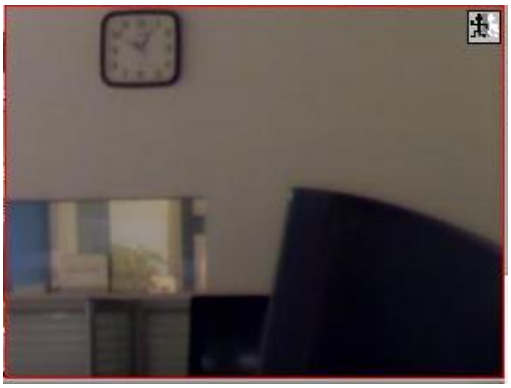
For this function, it is only available when you Right-single-Click image of IP camera. It will describe in IP Camera Setup.

7. Audio chat to IP Cam

Press this tool bar, you can select the “Audio Chat to IP Cam “function to chat with the IP Cam as bellow:

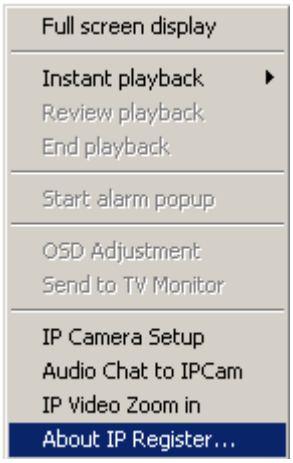
8. IP Video Zoom in

If you press this tool bar, you select the image zoom out function. Single click the left mouse in the image and draw an area, and then it will be zoom-out as bellow:



If you want to display the normal image, you should single-right-click again and select ***IP Video Restore.***

9. About IP Register



Select this option to get your register information as below:

1.4.3 Interface description

1. Partition mode

Press button to set the window's partition mode of the main screen. There are many types of partitions; the available partition is determined by the total channels of cards, you can select the suitable partition according to the number of video inputs.

However, the partition mode is changing according to the size of the main interface. For example: When the size of the main interface is set as 1280*768, the partition mode will be changed.

2. Videos play in sequence mode switch

Press button to switch among all cameras in current windows in sequence when current partition number is less than total channels .You can press again to cancel the switch. But at first, you must confirm that *Camera Sequencing Interval* in system setup has been set enable.

3. Emergency recording button

Press button to trigger recording for selected window for 30 seconds even if they have been set to record by any other modes. This function is useful to deal with emergency when quick response is required.

4. Image capture

Press button to save an image for selected camera to local disk for reviewing or printing. It will ask you for file name and save path when you use to capture pictures for the first time. Next time, it will save to the previous path directly.

5. Manual record switch

Press button to record manually for selected camera and press it again to stop recording.

6. Information display panel

This panel displays the current date, current time, disk usage and description of the selected camera.

Note:

Disk usage will be changed to record days when the record data package is full and the new data is overlaying the old.

7. Local setup submenu

Press

button to access Local setup.

8. Playback

Press

button to enter Playback to search local video/audio data.

9. System lock

Press

button to prevent unauthorized user to operate system. Click this button again, the unlock dialog displayed, input User ID and password to unlock it.

Default User ID is “admin”, no password.

Note:

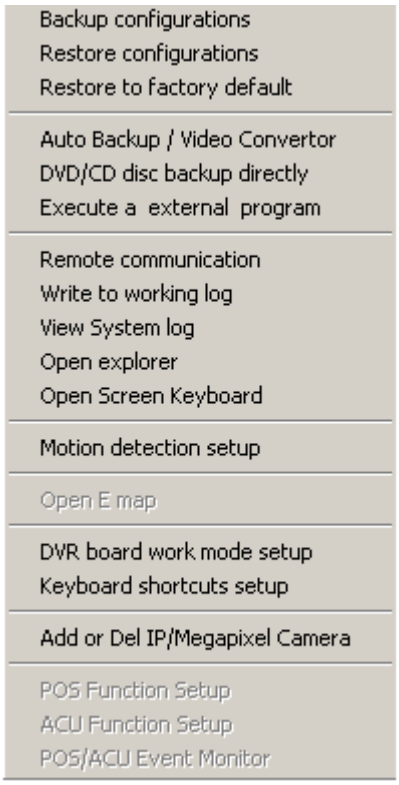
If the NDVR system is not configured as User Manage Mode, the lock button will be unusable and allow any client’s access (even in client program, user name and password will be useless).

10. Exit program

Press button to exit program.

After click this button, a dialog will be displayed. Click “OK” to quit NDVR system.

1.4.4 System Menu



1. Backup Configurations

Select this function to export system configuration parameters.

2. Restore Configurations

Select this function to import system configuration parameters.

3. Restore Default Parameters

Select this function to restore the default parameters of system.

4. DVD/CD Disc backup directly

Select this function to burn video data to DVD or CD, which is the same as burn DVD/CD in Playback.

5. Execute a external program

Select this function to execute an external program.

6. Remote chat

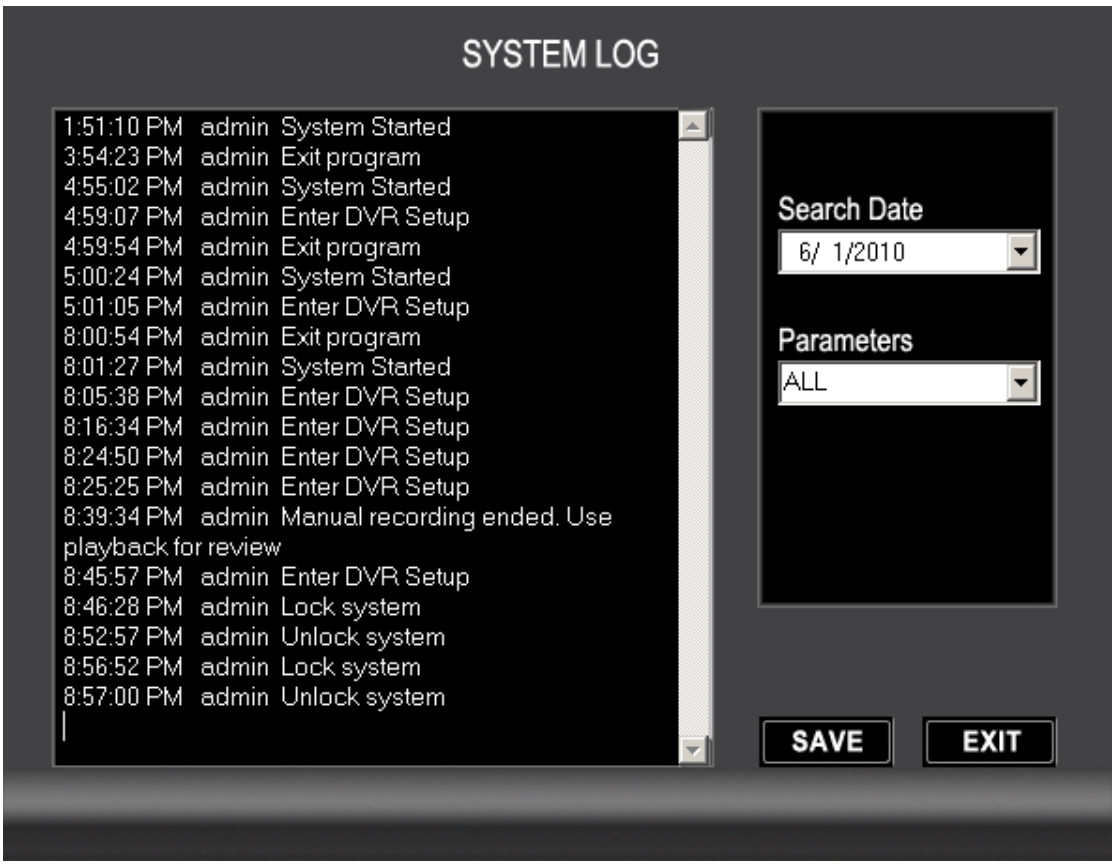
Select this option to connect a remote Client or Server for a live chatting via IP address, but please make sure audio card and Microphone have been installed.

7. Write to working log

This is useful to record events that occur during the operator's shift.

8. View system log

Select this function to view all actions of recording as well as operations. Users can search log according to the parameters, such as: operation, prompt, alarm and work log.


SYSTEM LOG
1:51:10 PM admin System Started
3:54:23 PM admin Exit program
4:55:02 PM admin System Started
4:59:07 PM admin Enter DVR Setup
4:59:54 PM admin Exit program
5:00:24 PM admin System Started
5:01:05 PM admin Enter DVR Setup
8:00:54 PM admin Exit program
8:01:27 PM admin System Started
8:05:38 PM admin Enter DVR Setup
8:16:34 PM admin Enter DVR Setup
8:24:50 PM admin Enter DVR Setup
8:25:25 PM admin Enter DVR Setup
8:39:34 PM admin Manual recording ended. Use playback for review
8:45:57 PM admin Enter DVR Setup
8:46:28 PM admin Lock system
8:52:57 PM admin Unlock system
8:56:52 PM admin Lock system
8:57:00 PM admin Unlock system
Search Date
6/ 1/2010
Parameters
ALL
SAVE
EXIT

9. Open Explorer

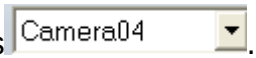
When keyboard is locked, users can operate window resource via explorer.

10. Open Screen Keyboard

This function allow user to use soft keyboard. Also, in the setup interface, you can Left-Double-Click the blank to open soft keyboard.

11. Motion detection setup

You can use the motion link PTZ preset function. Select ***Motion detection setup*** to set the motion detection area.

First, you should select the ptz camera and set the preset. Then, you should select the detected camera, which is showed as  . Next, select the detected area named Zone01 like the green frame. If you select the number is 64, the total of the zone is 64, you can detect the number of areas is 64. When the detected area motions, the ptz camera will link to the preset you set.

If you don't want to use the motion link ptz preset function, you should press again, then the motion detection is enable as below:

By default, the entire screen is set as motion detection area where is indicated with green border around the image. To mask a specific area, you can click DELETE button to cancel the full screen detection border; then Left-Single-Click and drag a rectangle. A green rectangle will mark the area of it. Also, you can set any other areas. Any activities in the motion detection areas will trigger recording, depending on the reaction mode; and alarms may be generated along with electronic map icons flashing in alert mode. Click TEST button to test the sensitivity of motion detection. The sensitivity can be adjusted by dragging the slider bars below the motion detection window,

The Sensitivity value bar is used to adjust the sensitivity of the area you selected. The sensitivity value is smaller the motion detection is more sensitive.

The motion value bar is used to set the minimum acreage of full screen to trigger alarm. Its unit is percent, if the acreage of motion area exceeds the setting value of the areas you selected, system will trigger alarm. The default value of Sensitivity and Motion is 2 and 5%.

Note:

Motion sensitivity value will affect the accuracy of smart search.

(1). Add mask / Delete mask

Press

button to set the area to be shielded. If there are some areas that you don't want to show, you can draw those areas with mouse till they change to be black. You can set several cover areas. Press this button again to finish adding.

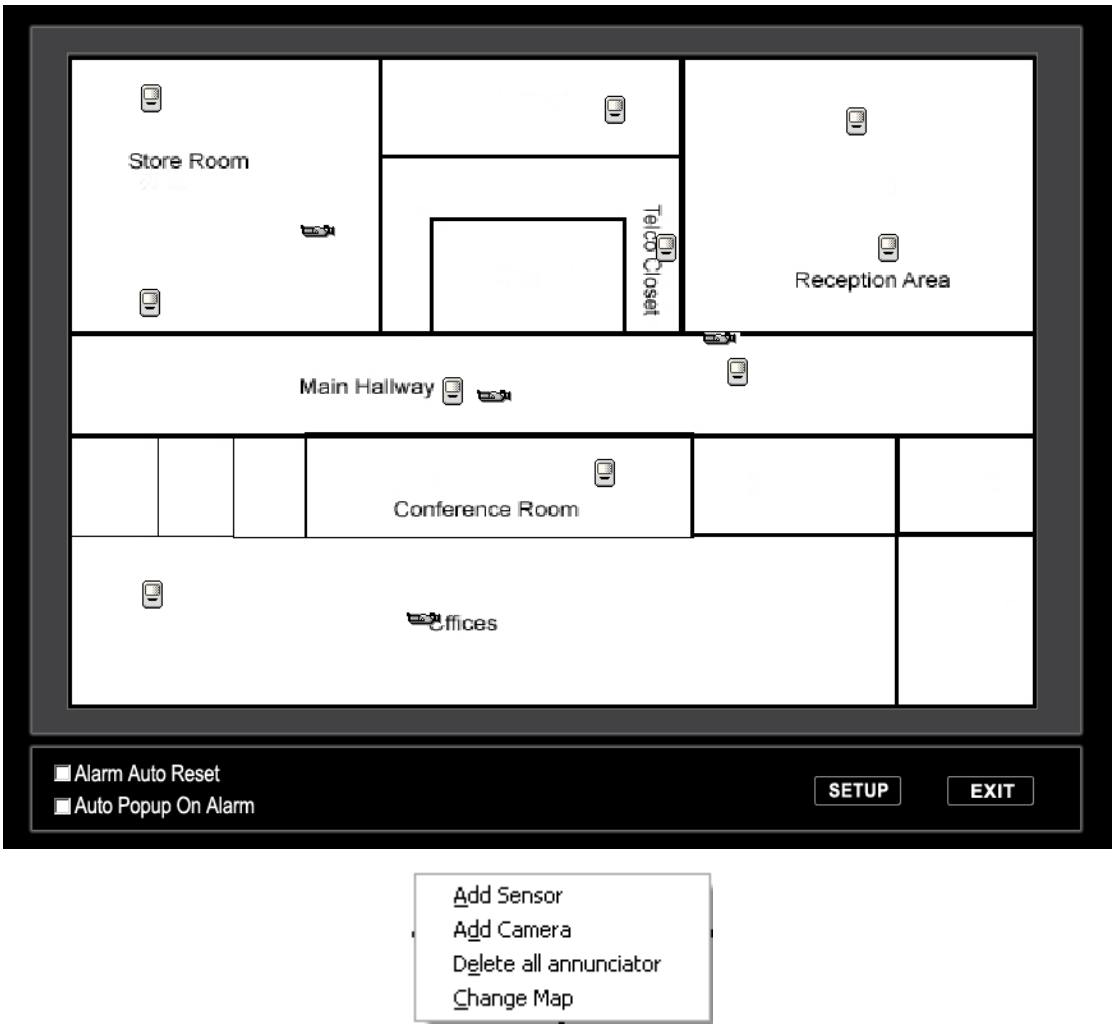
Press

button to delete all cover areas.

12. Open electron map

Click

icon and then Right-Single-Click on the map, the setting picture will appear. You can add or delete sensors and cameras that pointed by the arrow or change the digital map.



If it is set to appear automatically, when the sensor is triggered, the map will appear automatically and the sensor being triggered will be marked. For triggered camera, user can Left-Double-Click it to view its video.

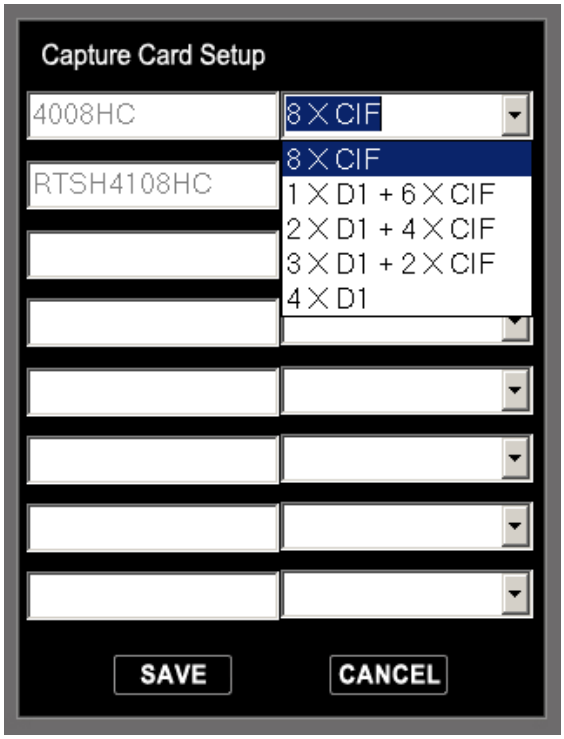
13. Play back to TV Monitor

In NDVR system, the recording data of 40 series card and some IP cameras (except Mega IP cameras) can be transmitted to TV monitor via Matrix card.

When system runs “Playback to TV Monitor” process, the Matrix card will output recording data. If this process does not run, matrix decode card will output real-time video to monitor according to your matrix board setup. Otherwise, when you use matrix card to decode video data from IP Camera, you can’t use this function to play back recording video data to TV Monitor but only output real-time video of local board and IP Camera to TV Wall according to your setting in Matrix setup. In this process, you can play back record file by date and camera, and the record file will be played automatically.

14. NDVR board work mode setup

Each NDVR system supports maximum 8 PCs HC400X (total channel is equal to 64) series board, so user can set its work mode via this GUI.



The new work mode of NDVR board will take effect after rebooting NDVR Server software.

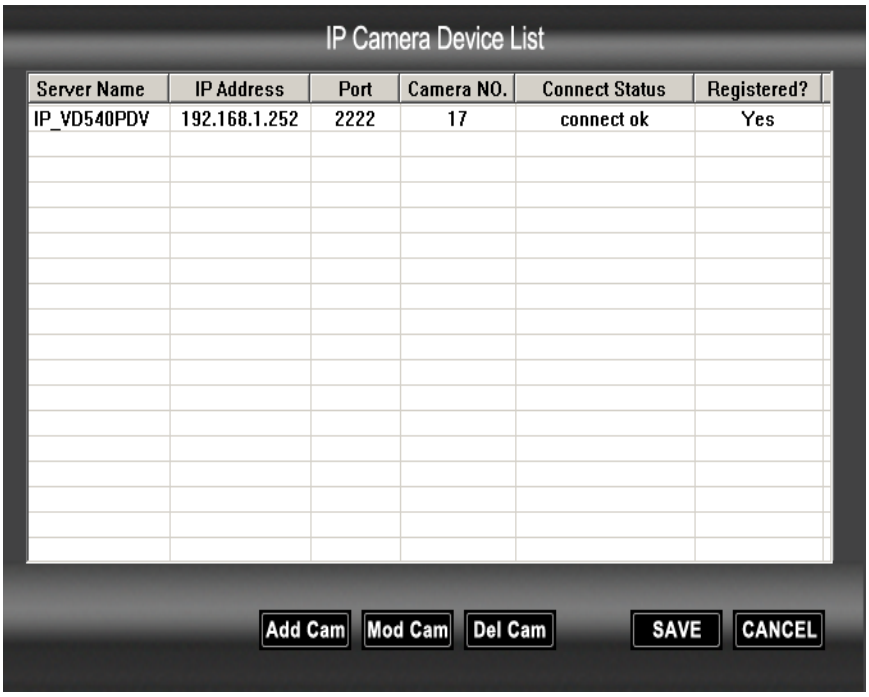
15. Keyboard Shortcuts setup

If you don’t want to use certain shortcut keys, you can disable the shortcut functions and save the setup.

Keyboard Shortcuts Setup
F1 (Software help)
F11 (Single Window Zoom), F12 (Full Screen), F9 (30 Sec. Record All)
Ctrl + 1-9 (Instant Playback minutes), Ctr. + 0 (Playback)
Shift + 1-8 (Display Splitmode 1, 4, 9, 16, 25, 36, 49, 64)
Tab Page Up Page Down (Window Select)
WindowsSys + Z (Minimize)
← ↑ → ↓ Home End Insert Delete (PTZ Control)
SAVE
EXIT

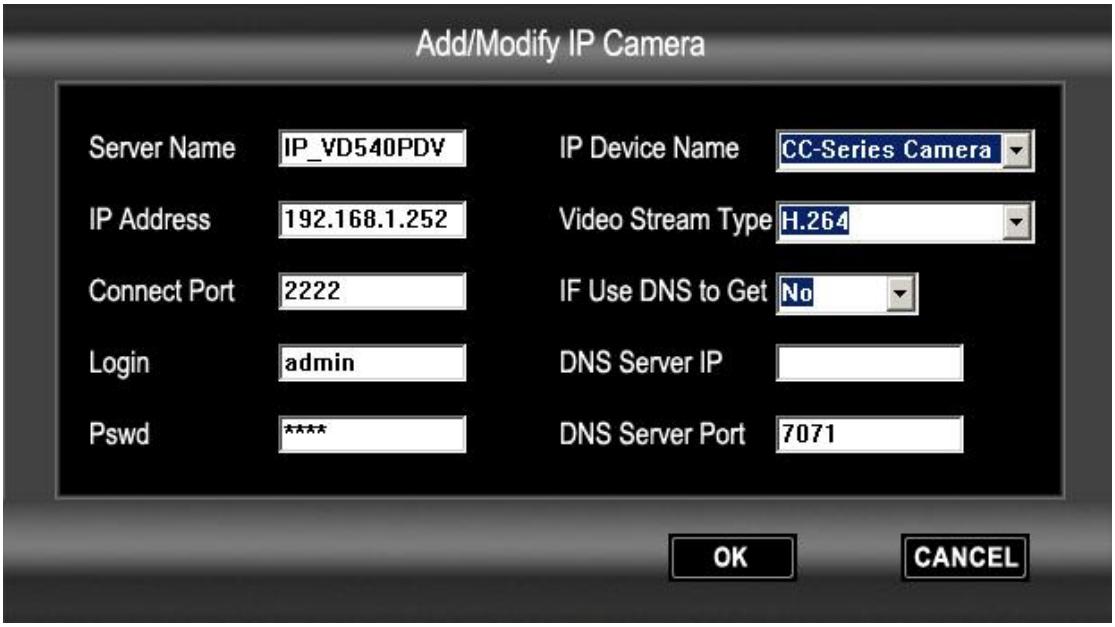
16. Add/Del IP Camera

Press this bar to add IP Module to NDVR system. For resource limitation, you can add max 64 IP Modules, including DVS and EM NDVR. Now our software supports the following types of IP products: E Series DVR, ACTi IP Cameras, AXIS IP Cameras, Arecont Vision IP, CC-Series Cameras, DC-Series Cameras, HC-Series Cameras, H-Series DVR, Huviron Cameras, Mobotox Cameras, Sony Ip Cameras



(1). Add IP camera device

Press Add Cam button to add an IP Camera device:



【Server Name】Set a name for the new IP camera device for easy identify.

【IP Address】Input the address of the IP Camera, it is an IP address or IP alias of the IP camera which is connected through DNS Server.

【Connect Port】Set the port through which connects to IP Camera.

【Login user ID/Login Pass】When the user want to visit IP Camera and the server has used the function of rights management, login user ID and password will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

【Device Name】Select the corresponding name for the IP camera. Now our software supports the following types of IP products: E Series DVR, ACTi IP Cameras, AXIS IP Cameras, Arecont Vision IP, CC-Series Cameras, DC-Series Cameras, HC-Series Cameras, H-Series Cameras, Huviron Cameras, Mobotox Cameras, Sony Ip Cameras

【Video Stream type】If you want to use the ***Record sub stream*** function in the IP device, you should select the data stream type ***Double Stream***.

Select the Main-stream or sub-stream for the device, the main-stream and sub-stream could be set in the following interface:

【If use DNS to get IP】Select whether use DNS to get IP or not, if the server end is the dynamic IP address, users need use DNS to get the server's IP.

【DNS Server IP】Set IP address of DNS server host.

【DNS Server Port】DNS server host's port, which is providing to connect DNS software.

When you finished adding IP Camera to NDVR system, it will show the status of that camera, including Sever name, IP Address, connect port, sequence number for IP Camera, connect status and register information.

Note:

After you add IP cameras to NDVR system, they will be collocated sequence numbers after local board cards. The sequence numbers of the IP cameras change dynamically according to the total numbers of local board cards and the sequences of the IP cameras that have been added to NDVR system. For example, if there are 32 channels local board cards, then you add 2 IP cameras. They will be collocated 33 and 34 as their sequence numbers. Then if you add another board card (4 channels), the sequence numbers of them will change to 37 and 38 dynamically.

(2). Modify IP camera

Press

button to modify IP camera's information, its interface is same as Add IP Camera.

(3). Delete IP camera device

Press

button to delete connected server. When system is in processing to add IP camera device (“connecting…”indicated in connect status column), user cannot delete that IP camera device.

(4). Decode card work mode

NDVR system supports playing video of IP Camera to TV wall directly, and then it uses the hard decoding function of decoder, so you should set the work mode of decoder. If you don’t use hard decoding, you can’t output video of IP Camera real-time, user can only play back recording data to TV monitor by selecting *Playback to TV Monitor* function.

Note:

Each WTE4002MD card can decode 2 channels D1 or 4channels CIF.

Each WTE4004MD card can decode 4 channels D1 or 8 channels CIF.

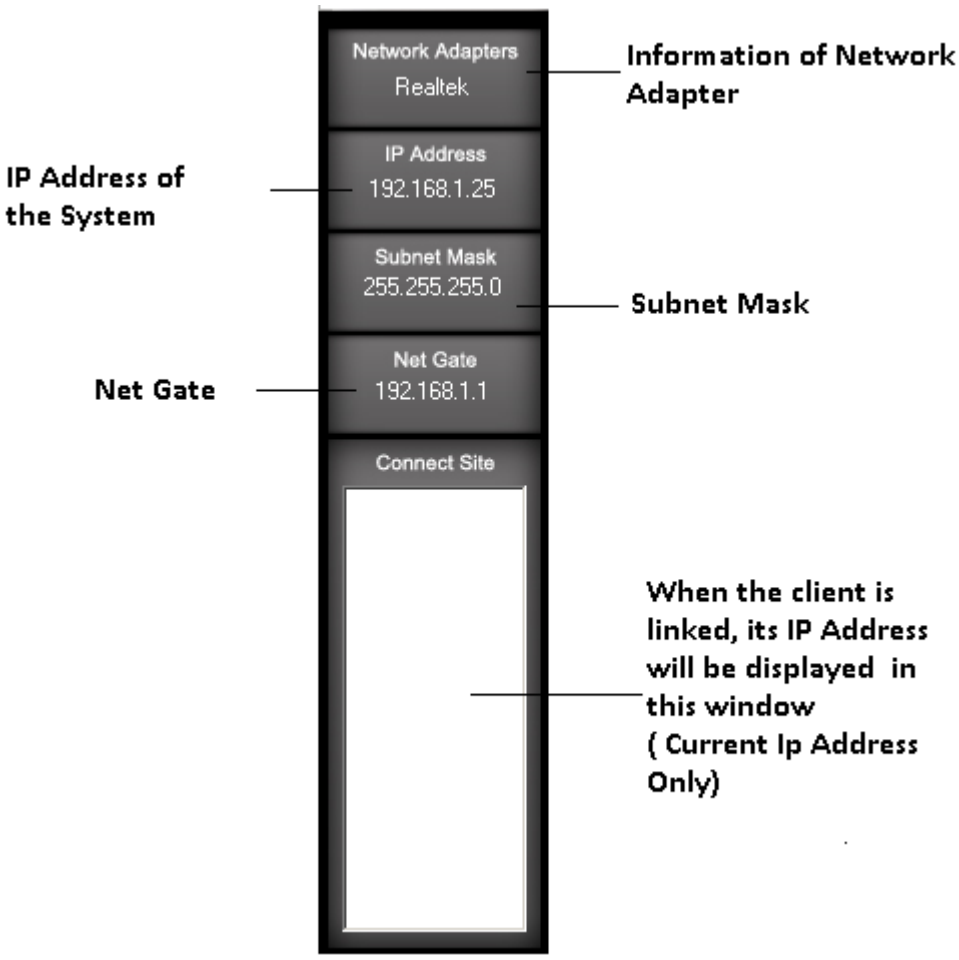
When you select the work mode, system will send out corresponding channels of IP camera from the first IP camera. It will not influence soft decoding for cameras of local board cards. If you enable hard decoding, then all the images of cameras will be displayed in overlay model, adversely, all the images of cameras will be displayed in off screen model.

17. Pos/Acu Function Setup\Event Monitor

We will introduce the Pos particularly in Pos Manual.

1.4.5 Network panel

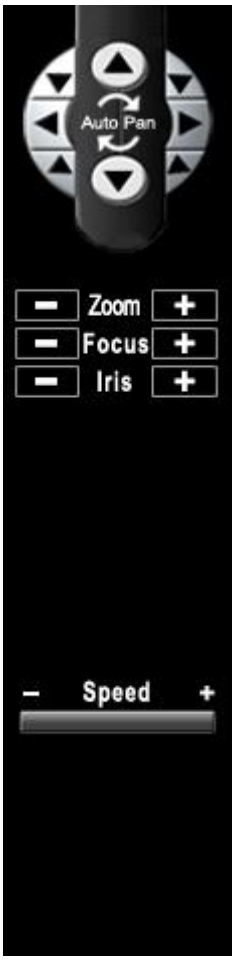
This panel displays the network configuration of NDVR system.



1.4.6 PTZ Control panel

In NDVR system, there are three ways to operate PTZ:

1. Panel operate;
2. Operate in video area directly;
3. Keyboards operate.



1. PTZ speed

Press and drag the slider bar to adjust the speed of PTZ.

2. Relay (On/Off)

Control the PTZ cameras internal relay (relay1) or the decoder's relay (relay 1). Used to turn on a light or control an access gate.

3. Wiper (On/Off)

If using the PTZ cameras corresponding wiper control relay, this toggles the relay/wiper on and off.

4. Zoom + / Zoom –

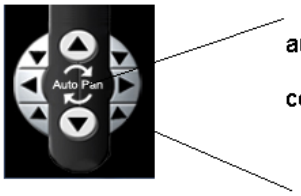
Control the zoom function of the PTZ camera.

5. Focus + / Focus –

Overrides the auto-focus setup of the PTZ camera, adjust focus the image.

6. Iris + / Iris –

Overrides the PTZ cameras auto-iris and brighten or darken the image.



Pressing this button initiates the connected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factories forbid this command.

By pressing and holding these buttons, the PTZ camera will move up, down, right and left as well as other directions.

7. Speed Dome

Press

button to operate the speed dome, including Preset Setup, Preset Call and Preset Tour:

(1). Preset Setup

In this screen you can set the preset position:

I. Add/Delete preset

In this section you can set the preset name with its sequence number, then you can press + / – button to add/delete a preset, when you want to modify the preset you can press SET button to confirm your modification. For different cameras, they have different commands to open and set, so you can choose the call mode in the drop-list for different cameras.

II. Home position

You can set a home position for the PTZ. When there have no PTZ actions after the setting time system will call the PTZ to the home position.

III. Tour preset

In this section you can set the tour schedule. First you

can choose a group, and then set the track for this schedule; you can press + / − button to add/delete a preset to it. After you choose the preset name you can set the time to keep on.

(2). Preset call

When you select this function, system will show all the preset names you set in Preset Setup menu; you can click one to move to it.

(3). Preset Tour

When you select this function, system will show the entire tour groups you set in Preset Setup menu; you can click one to execute it.

If the views are the PTZ&IP camera and mega pixel IP camera, when you call preset 95, you can see:

When you enter the menu, you can control it by

, using up, down, left and right buttons. Press

(close Iris) to enter the sub menu. When you use up or down to move to “exit”, press “open Iris” to exit the menu.

8. Control PTZ via video window

Press and drag the mouse to the corresponding area can control the PTZ when there is a decoder.

1.4.7 Color and Audio adjustment

Press the button and drag to adjust the brightness of the image that you selected, and you can resume its default value by pressing.

Press the button and drag it to adjust the contrast of the image that you selected and you can resume its default value by pressing.

Press the button and drag it to adjust the hue of the image that you selected, and you can resume its default value by pressing.

Press the button and drag it to adjust the saturation of the image that you selected, and you can resume its default value by pressing.

Press the button to switch sound of the audio that related to the image you selected and drag the bar to adjust the volume, and you can resume its default value by pressing.

Copy Color To: pressing the

button to copy the color and audio adjustment in this camera's setting to the others.

1.4.8 Matrix & display

This panel includes matrix group and display group. Each group includes 16 numeric buttons; each button denotes one type of matrix or display. This will describe in Digital matrix setup.

1.4.9 Sensors / Relays Control

1. Sensor Control

Press number button to check sensor all time forcibly even though user didn't set check sensor in sensor setup. The channel of DI and DO is determined by the setup of DI/DO device you set in System setup. There are two types of status to DI:

- 2 Input channel 2 doesn't check sensor forcibly.
- 3 Input channel 3 checks sensor forcibly or has an alarm inputting.

When there is no alarm yet, user can press number button to check sensor forcibly. Press the button again to stop checking all time, then system checks sensor according to Sensor setup. When there is an alarm, the corresponding button will show the alarm with green.

Note:

When you select WT-E-7632-RI and the combination is not the standard configuration (combination of WT-E-7608-RI and WT-E-7616-RI or WT-E-7608-RI: total DI is less than 32), some ports are not available according to the setting of decoder address. For example: user selects WT-E-7632-RI and the combination is WT-E-7608-RI (decoder address is 1) and WT-E-7616-RI (decoder address is 2), then the Sensors ports 9 to 16 are not available, so that the status indication is not available.

2. Relay Control

Press number to open/close alarm device relay switch manually. There are two types of status to DO:

- 2 Output channel 2 is close.
- 3 Output channel 3 is open.

When there is no alarm triggered out, user can press the number button to output alarm forcibly and the button will show it with green, press it again the output will be closed.

Chapter2 **Local setup**

The NDVR System Configuration and include 7 types of configuration setup:

System setup

Camera setup

Sensor setup

PTZ & linkage setup

Email & SMS setup

Matrix & display setup

User setup

2.1 System setup

2.1.1 System setup

【**Number of Channels**】Display total channels of Local board card, the number of IP Camera is not included. For IP Camera, you should set it remotely in IP Camera setup.

【**Sensor Input(DI)**】Display number of sensors (DI).

【**Sensor output(DO)**】Display the number of alarms(DO).

【**Audio Monitoring**】Select real-time monitoring audio or not.

【**Use E-Map**】Select use Electron Map or not.

【**Camera sequencing interval**】Set auto-split changing interval time.

【**DI/DO Port**】Select sensor/alarm driver connecting port, it must be different from PTZ Port. If you do not use alarm input, you can close this function. To avoid conflicts to the PTZ port, you should set and use the different ports for these two functions.

【**Keyboard Shield**】System keystroke. When it is enable, functions of some system keys will be disabled.

【**Save Log for() Days**】Log save days(max 100 days).

【**POS Function**】Set the pos function disable or not.

【**ACU Function**】Set the ACU function disable or not.

【**Alarm camera popup interval**】Set the interval of alarm camera, if you select "—" ,you can't select function ***Start alarm popup***.

【**DI/DO Device**】Select receive alarm device type. When you change the type of alarm device, you should reboot the system to update the device information in ***DI/DO control panel***.

Note:

Currently, system supports following WV serials DI/DO devices: WV7608, WV7609, WV7616, WV7616B, WV7632 and WV7632B. WV7632 includes two WV7616 (or combination of WV7608 and WV7616), and WV7632B includes two WV7616B. When you select these two selections you must set their decoder address as 1 and 2, and they should connect with PC through RS 485 converter after they connect parallel with each other.

【**Date Format**】Select the way to display date. It decides the date display mode of NDVR system, including the information panel on the main screen, the date panel of the playback window and OSD date in video.

【**Alarm Beep**】Select disable or enable from drop-down list. If select "enable", when there is an alarm, system will make beep voice.

【**Time Format**】Select time format from the drop-list. After you change the format it will affect the OSD format, information in information display panel and file lists.

【**Default Camera type**】Set the default mode of video from PAL and NTSC, it is available when the input video is lost and for the decoder to playback local video to TV Wall.

【**Grab picture save to**】Select the path to save the captured pictures.

【**Preview Split Mode**】Select window split mode for NDVR between “Normal Mode” and “Wide Screen”. You would better select “Wide Screen” when you are using wide screen monitor. You should re-select the view window number to refresh the window split mode status.

【**HS Card 4CIF Mode**】Select the HS Card 4CIF Mode function disable or enable.

【**Language**】Select one kind of language to use. Generally speaking, there is “English” only. But we can add some other kinds of language according to your requirement.

Note:

If you want to use the dual monitor function, you must make sure the hardware and the system support the dual monitor first. When there are more than two monitors connected and all the settings are done, the software can realize dual-monitor function automatically. For more details about dual-monitor, please refer to Appendix F: Dual Monitor.

2.1.2 Network setup

【**Remote Connection**】Select using network or not. If select “disable”, it will not permit any client connect this NDVR system;

【**Remote Connect Port**】Select remote connection port for Clients.

【**Remote buffer Priority**】There are three items selected. “Smooth” demands the system have large buffer. “Real-time” demands there is enough bandwidth. Otherwise, the data will be off and on over and over when it is sent though the network.

【**PDA Connection**】Select whether allow PDA connect to NDVR system. If select “disable”, it will not permit any PDA device connect this NDVR system.

【**PDA Connect Port**】Select remote connection port for PDA device.

【**Automatic Alarm Notification client IP**】Assign a network client to receive alarm message when there is an alarm. The alarm channel image will

auto display in the client software. But user must be sure that client is running on that IP address.

Note:

Alarm auto connection to IP is used to input alarm automatically. When sensor, normal or motion record is set to input and there is IP address, the system will check if the client has connected with this system. If there is no connection, the system will try to connect with it through Port 5300(preset). While it cannot be connected, the system will keep trying till the connection is OK. So please ensure that your client's program is in use, Port 5300 is listening and the network is in good condition. If not so, the system will not be stable.

【Alarm Send Port】This is the alarm message connecting port, which is used to send alarm from NDVR Server to Client.

【Web Server Port】The IE client connecting port. Default value is 80 for http access; but for some windows XP edition, it shields 80 ports. In this case, user should modify this port to other port, such as 1280. After that, user must reboot NDVR server, then user can access NDVR server via IE Client like this: http://IP: 1280 (IP can be a static IP or dynamic domain name).

【Use DNS】Select use DNS or not, support dynamic IP.

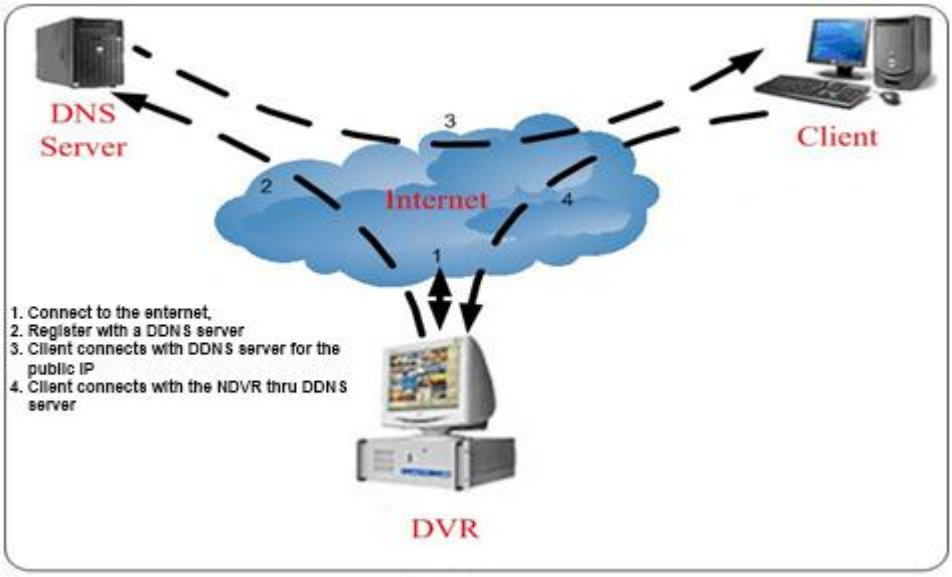
【Local Host Name】Input the name description for DNS Server identification.

【DNS Server IP】DNS server host IP.

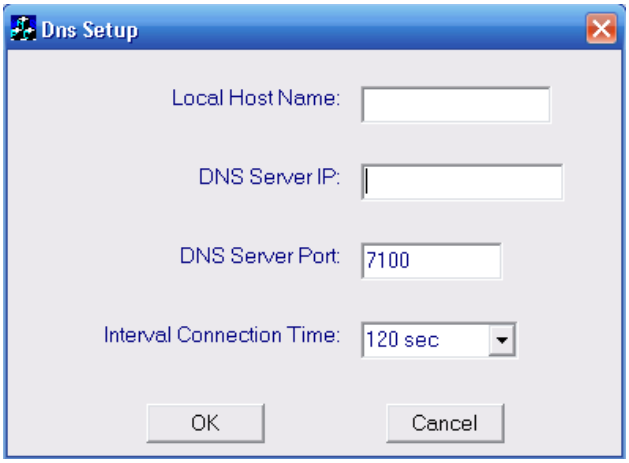
【DNS Connection Port】DNS server host port ,it is used to connect DNS server.

DNS server work mode:

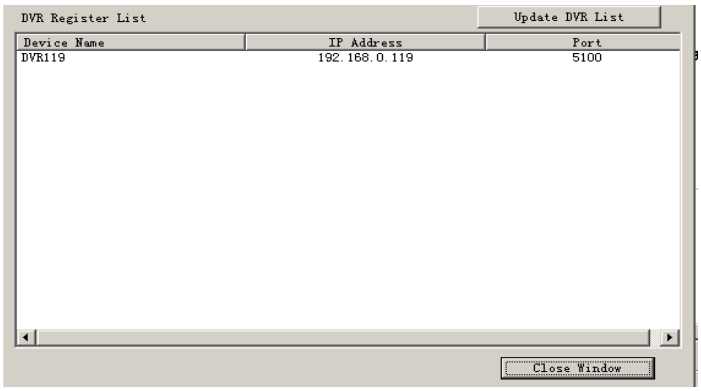
If it is required, please get DNS server software from developer.



1. If your NDVR is dynamic IP, you should set your NDVR system as follow:



2. DNS server will get domain name and current IP of your NDVR, NVR Client can connect NDVR server through this domain name.



3. NVR Clients get IP of NDVR through DNS server according to its domain.

4. NVR Clients visit NDVR through the IP that get from DNS server.

【**Interval Connection Time**】Set the interval time to connect DNS automatically.

【**Permit Max Connect Video Num**】The maximum number of video that permit to the client to connect the NDVR server. The number can select according to the network bandwidth. The maximum is 256. For example: one NDVR server own 2Mbit network bandwidth, if all video channel compress base on CIF resolution (max data bit rate is 500Kb).To get better video effect, we can set 4 as the permit max connect video number.

2.1.3 Boot setup

【**Exit to Windows**】User can exit program and back to windows desktop.

【**Exit and Shutdown**】User can exit program and shut down computer.

【**Auto Shut Down**】Set the time to shut down the computer.

【**Auto Reboot Date(Mon-Sun)**】Select auto reboot date.

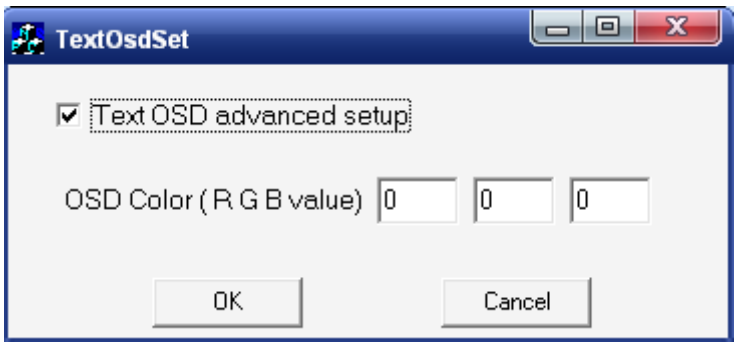
【**Reboot at**】Set auto-reboot time.

2.2 Camera setup

2.2.1 Camera setup

【**Selected Camera**】To set the parameters for a camera, select the camera from the drop-down list. The cameras you can select are only the cameras of the local board card except for IP Cameras. For IP Camera, you should set it remotely in IP Camera setup.

【**Camera Description**】Input the description for easy identification. OSD text can support any languages, it can put any language in camera description edit blank ,and then press the button to set proper color (it does not support white) as below:



【**Camera Type**】Select camera type from drop-down list. Users can choose from PAL and NTSC.

【**Camera**】Enable or disable selected camera.

【**Sub Stream Frame Rate(fps)**】Set the frame rate of the Sub Stream.

VBR allows each frame to be recorded at a dynamic bit rate depending on the image complexity, activity and color.

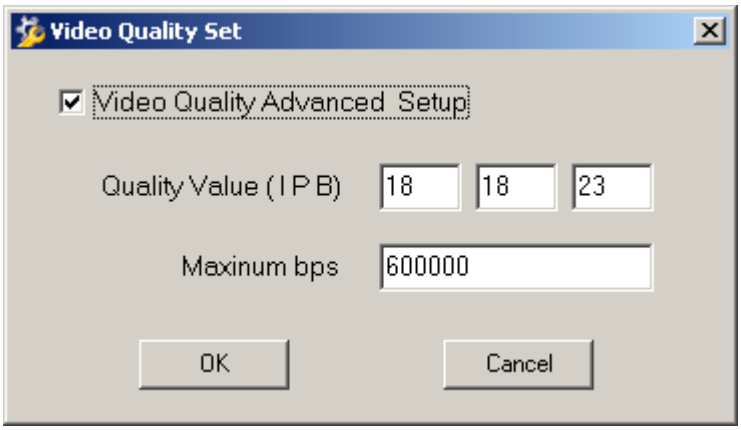
CBR allows each frame to be recorded at fixed bit rate, regardless the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【**Frame Rate(fps)**】Set the recording rate for selected camera. For Frames per Second (fps), the frame rate should be from 1 to 30 fps. While image size is set “704*576”, the frame rate should be set around 1 to 15 frame.

【**Sub Stream Image size**】Select image resolution to the Sub Stream. When you set the【**Image Size**】As 4CIF(704*576), this configuration is not available for HC series card.

【**Image Quality**】Set the quality of the image to be recorded. Select from Poorest, Poor, and Medium, Very good and best.

... Click this button to make advanced setup for video quality, you can set I B P frame and maximum bit rate.



Recommend setup:

For CIF:

Image	I frame	P frame	B frame	Max bps
Best	12	12	17	900000
Good	15	15	20	750000
Medium	18	18	23	600000
Low	21	21	26	450000
Lowest	24	24	29	300000

For DCIF:

Max bps = (Maxbps/3)*5

Note:

Maxbps is the CIF's value with the same configuration (I P B)

For D1:

Max bps = (Maxbps/3)*8

Note:

Maxbps is the CIF's value with the same configuration (I P B)

【Alarm Adjust fps】 Select enable or disable, If select "enable", when alarm occurred, the camera will record with real-time frame rate(25fps or 30fps) ,even though **【Frame Rate(fps)】** has been set other values(eg:5fps).

【Remote Quality】 Set the image quality of the clients to be recorded from Poorest, Poor, Medium, Very good and Best.

Click this button, users can make advanced setup for video quality of client end, also can setup I B P frame and adjust maximum bit rate according to the network bandwidth.

【Image Size】 Set the resolution for local record. There is an item "704*576(12fps)", each channel can be set "704*576", but not real time, system will select frame rate automatically around to 12-15fps。To get best effect, you should set the resolution of local record according to your CPU configuration. There is a referenced configuration sample as below:

Computer configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB,

Memory: 512MB

HDD: 120G (IDE)

Recommended resolution configuration for different channels:

NDVR Board Channels	Recommended Resolution	Remark
64	CIF	Continuous recording is not recommended
48	CIF	
40	DCIF	
	CIF	
32	DCIF	
	CIF	
24	DCIF	
	CIF	
Less or Equal to16	4CIF	
	DCIF	
	CIF	

【**OSD Date**】Select whether display the OSD date on the screen or not. When you select “Not”, the date will not display on the screen of corresponding channel.

【**Masking Bitmap File**】Watermark function ,the logo picture must be edited ad 128*128 pixels file size and saved as bmp format.

【**Record Days**】This section allows users to determine how long the record data of each camera should be kept in the system. The maximum duration for on-line storage is 120 days. Users can select an exact number of days, or select “auto” mode. If select “auto”, system will auto-delete the recorded data of the earliest days when there is no enough space.

Note:

If there is no enough space of HDD, system will delete the record data according to the length of saving time of each camera. E.g.: there are four cameras, the 1st camera saves 2 days, the 2nd camera saves 5 days, the 3rd camera saves 10 days, and the 4th camera we set “auto” mode. If there is enough space, the 4th camera’s record data will save in HDD, while there are no enough space, system will delete data automatically. If the 4th camera’s record data has been saved more than 10days, system will delete the 4th camera’s data. If the 4th camera’s record data has been saved less than 10 days, but the 3rd camera’s data is more than 10 days, system will delete the 3rd camera’s data. So, even if you set the 3rd camera’s record data saving 10 days, the data that is saved less than 10 days become possible. System will delete the record data from the earliest date.

【**OSD Contrast**】Set OSD displaying brightness & position. An “auto” item in OSD Contrast’s drop-down list will make OSD suit the background’s color automatically.

【**Copy Setup to**】Set other cameras with the same setup.

Notes:

1) If less than 64 cameras are used, many of them can’t provide pictures sometimes and an alarm will appear (beep to tell you some video information is missing). Set the camera with no picture disabled and the alarm will disappear. When you want to use them later, set as enabled again;

2) The unit of the swap file should be MB. The range is from 2 to 50;

3) Set the position and contrast of the date shown on the screen. Sometimes the date cannot be clearly seen for its color is similar with

the background. You can change its position or color when this happens;

4) Image size is the format used when recording. Remote image size is the format used when these images are transmitted to client sides;

5) Remote Frame Rate, Remote image size and Remote Quality are the parameters of the client side. ①When the server's image size is set as "704*576(12fps)", the three items are no effect, and client's parameters will be the same with server. ②When the server's resolution is set as others (except "704*576(12fps)"), if Remote image size is set as "Same as Rec", Remote frame rate (fps) and Remote Quality are no effects, the client's parameters will be the same with server;

6) Variable digital rate table:

Image quality	record environment	occupied disk space (/com/hour)
Poorest	low action, indoor	about 45Mb
	high action, road	about 95Mb
medium	low action, indoor	about 70Mb
	high action, road	about 180Mb
best	low action, indoor	about 160Mb
	high action, road	about 320Mb

Invariable digital rate can't improve image quality but it is helpful for calculating disk space. Variable digital rate recording is recommended.

2.2.2 Group setup

Note:

If you set a camera into several groups, only the last setup is available.

【Selected Group】 Select group number.

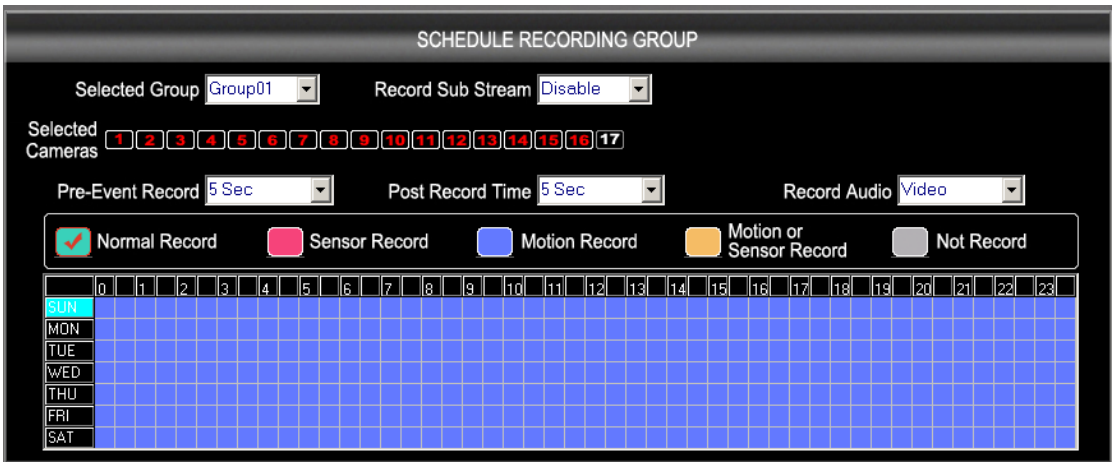
【Selected Cameras】 Select the cameras that the work mode of which are the same in a group. Cameras include local board card and IP module.

【**Pre-Event Record**】Select the start time of record when there is an alarm. When NDVR system is in Motion Detect mode or Sensor Detect mode, it can record video before the alarm is trigged.

【**Post Record Time**】Select the end time of record when there is an alarm. When the system is in Motion Detect mode or Sensor Detect mode, it can record video after the alarm end.

【**Record Audio**】Select whether program record audio data or not, this setting is not available for IP Cameras, for stream type of IP Camera, you should set it remotely in IP Camera setup.

Recording Schedule Setup (Set for cameras of local board cards and IP Cameras.)



Tips:

One block of pane means half an hour. Firstly click record mode icon , then click schedule diagram, hold down the mouse and move it to select large area (Drag & Drop).

1. Normal Record (green): NDVR system always record video (e.g. Sun.);

2. Sensor Record (red): NDVR system begins to record video only when there are POS or ACU actions(e.g. Monday);

Note:

The time setup must be corresponding with Check Alarm setups in Sensor setup otherwise it can't work properly.

3. Motion Record (Blue): NDVR system begins to record video only when it detects moving object (e.g. Tuesday.);

4. Motion or Sensor Record (yellow): Combine with above 2 and 3 function (e.g. Wednesday);

5. Normal & Motion Record (light blue): NDVR system records in motion detection record when it detects moving object and in normal record when there is no motion (e.g. Thursday);

6. Not Record (gray): NDVR System records no video (e.g. Friday and Saturday).

2.3 Sensor setup

2.3.1 Sensor setup

【Select Sensor】Select the sensor from the drop-down list in order to set the parameters for it.

【Sensor】 Select this sensor port to use or not.

【Sensor Position】 Enter the description for easy identification.

【**Activate PTZ Preset**】Select linkage of Speed Dome preset number . Speed Dome will move to this preset number automatically when there is an alarm. (Speed Dome installation needed).

【**Play Alarm sound**】Select a sound of .wav for a sensor, if there is an alarm, the sound file will play.

【**Link to PTZ**】Select camera that is related to this sensor alarm.

2.3.2 Group setup

Sensor group setup is very similar to the group setup of camera recording.

【**Selected Group**】Select group number.

【**Sensor Type**】Select NC or NO alarm type.

【**Alarm Write log**】Select write alarm log or not.

【**Alarm Action After It Times-Out**】Select system alarm linkage mode when an alarm stops. “Stop Immediately” means the system stop alarm immediately after the alarm driver stops an alarm. “Do Not Stop” means the system don’t stop alarm after the alarm driver stops an alarm. “Wait” means the system will stop alarm at your setting time after the alarm driver stops an alarm.

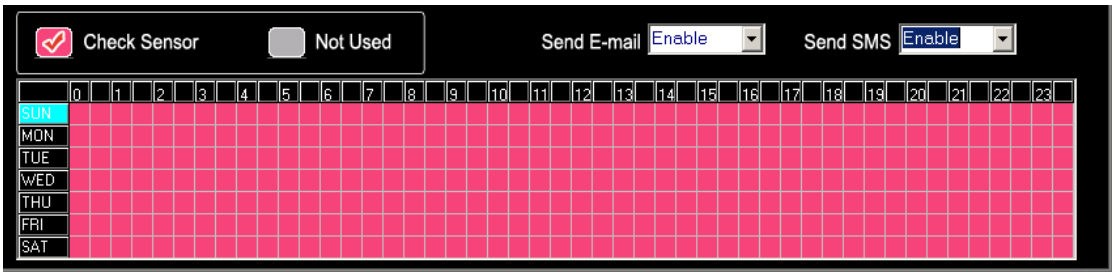
【**Send email**】Set the send email alarm function disable or enable when the sensor test abnormally.

【**Send sms**】Set the send sms alarm function disable or enable when the sensor test abnormally.

【**Sensor input**】Add sensor to selected group.

【**Start recording cameras**】Set cameras that to be related to this sensor group. They will start recording and connect remote network client automatically when there is an alarm**.** The cameras just include the cameras of local board card; IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【**Trigger Output Relays**】Add alarm devices (alarm out port) to this group such as siren, light. All connecting devices will send alarm message when there is an alarm.



Check Alarm (Red): NDVR System responds with sensor during this time (00:30 to 12:00 from Sun. to Sat.);

Not Check (gray): NDVR System doesn't respond with sensor during this time.

Note:

If you set a camera in several groups, only the last setup is available.

2.4 PTZ & Linkage setup

2.4.1 PTZ protocol setup

【Selected Camera】Select the camera from the drop-down list to be set the parameters. The cameras just include the cameras of local board card; IP

Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【**PTZ Port**】Select PTZ connecting port, when you do not use PTZ port, please choose "------".

【**NDVR Keyboard COM Port**】Select a connecting port for NDVR keyboard. If you have chosen COM1 for DI/DO Port, and you choose COM1 again for NDVR keyboard, then, DI/DO Port will be changed to another port. If you want to know more details for NDVR keyboard, please refer to ***NDVR/NVR Keyboard Control Manual***.

【**PTZ Protocol**】Selects the PTZ protocol for the PTZ camera.

【**PTZ Address**】Set the camera ID number of the PTZ camera being controlled.

Note:

The PTZ camera has a dipswitch to set the PTZ address. The PTZ camera ID number must be matched with the number of this dipswitch.

【**PTZ Baud rate**】Select PTZ Baud rate for the PTZ camera.

【**PTZ Position**】 Select the installation mode of the PTZ according to its installation mode.

Note:

1) PTZ position will influence PTZ control. E.g.: if you set it as obverse and press left, then it will turn left. If you set it as inverse and press left, then it will turn right;
2) If there is (H) after the PTZ protocol, it has the high speed of Preset function. If there is no (H), it only has ordinary functions;
3) The PTZ address will be sent as a message option. Take care that some addresses begin from 0. That is to say, when the address number is 1, the real address is 0. So we must set it according to their relations.

2.4.2 Motion detection relay

【**DO Port**】【**DO Port Name**】Select a DO port and set its name to identify the various DO port. It will be shown as a tip when the mouse moves closely or above the DO button in NDVR Server or NVR Client.

【**Camera alarm detected In**】Selects camera to be set from dropdown list.

【**Send Alarm to client**】Select sending alarm to network clients or not.

【**Motion Alarm Sound** 】Press ··· button to selects a ".wav" sound File for a motion alarm. If there is a motion alarm, the sound file will be played. Also, you can test it by pressing Test button.

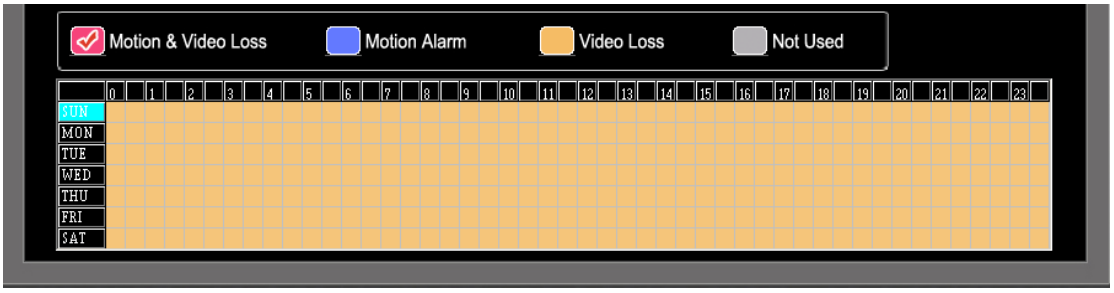
【**Send email**】Set the send email alarm function disable or enable when the cameras test abnormally.

【**Send sms**】Set the send sms alarm function disable or enable when the cameras test abnormally.

【**Video Loss Alarm Sound** 】Press ··· button to selects a ".wav" sound File for a video loss alarm. If there is a video loss alarm, the sound file will be played. Also, you can test it by pressing Test button.

【Trigger DO Output】Select which DO ports will be triggered by above camera alarms.

Schedule Setup (Setting for cameras of local board cards, IP Cameras are not included.)



1. Motion & Video Loss (Red): NDVR System responds with Motion Detection and Video Loss alarm in specified time;
2. Motion Alarm (Blue): NDVR System only responds with Motion Detection alarm in specified time;
3. Video Loss (Yellow): NDVR System only responds with Video Loss alarm in specified time;
4. Not Check (gray): NDVR System doesn't respond with any alarms in specified time.

Note:

Check Alarm Setup (including Motion & Video Loss, Motion Alarm and Video Loss) does not take affection to Motion Detection Record. It is only alarm setup. It takes affection to motion detect alarm out and motion detect alarm to network.

2.5 E-mail & SMS setup

Press

button to access E-Mail setup.

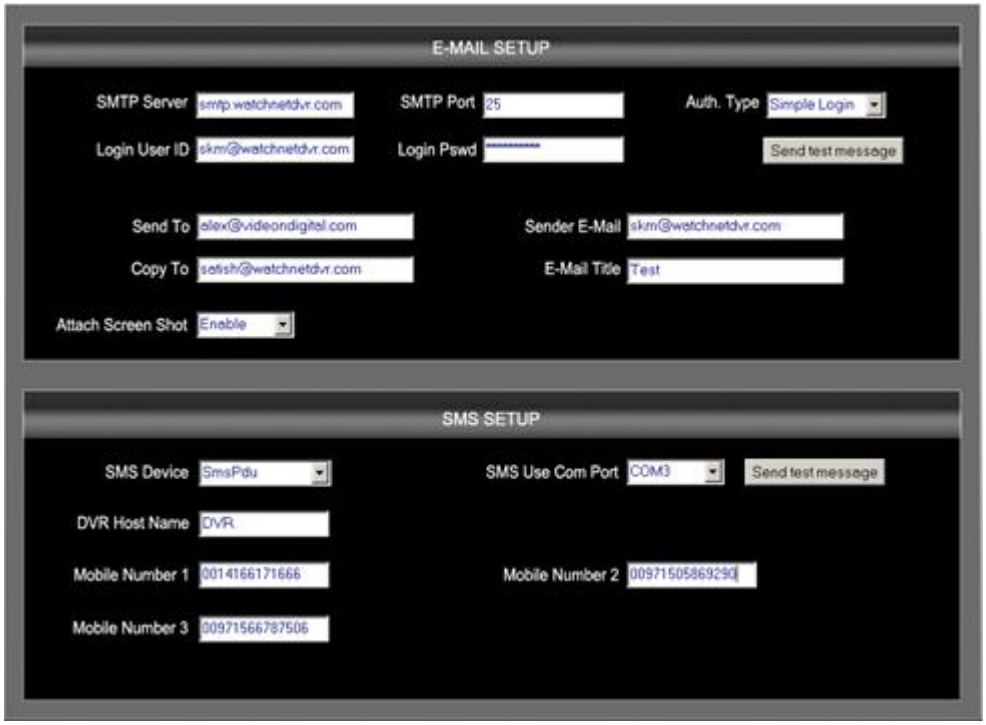
Note:

Before you set the E-mail setup, you should pay attention to several points as below:

The alarm that triggers E-mail sending includes two types: Camera-related alarms (Motion detection alarm & Video loss alarm) and Sensor-related alarms.

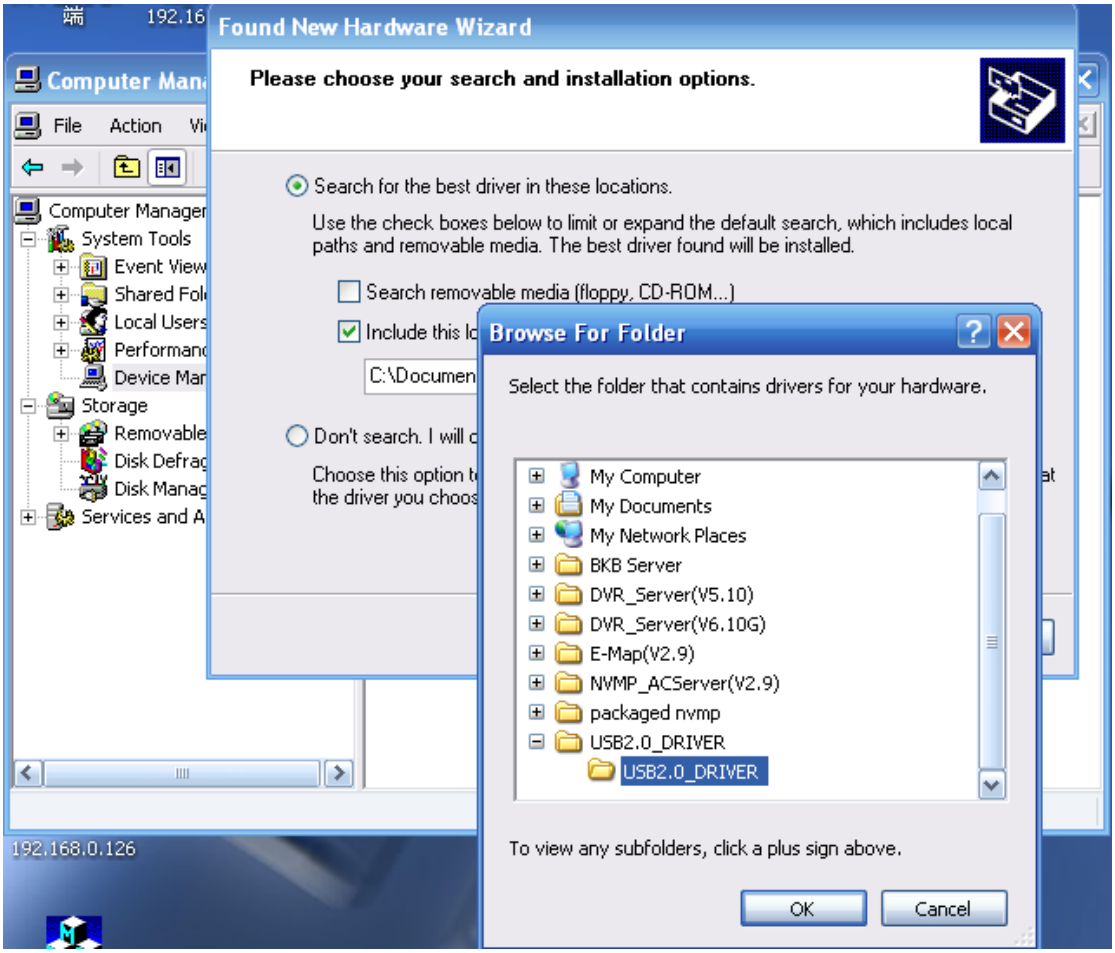
For Camera-related alarms, you should set Motion detection setup and check alarm in Motion detection relay. For Sensor-related alarms, you should set to check sensor and select cameras to be triggered in Sensor setup.

When you enable system capture image as attachment of E-mail, the system will capture a still picture of the alarm camera to be sent as an attachment of the E-mail.

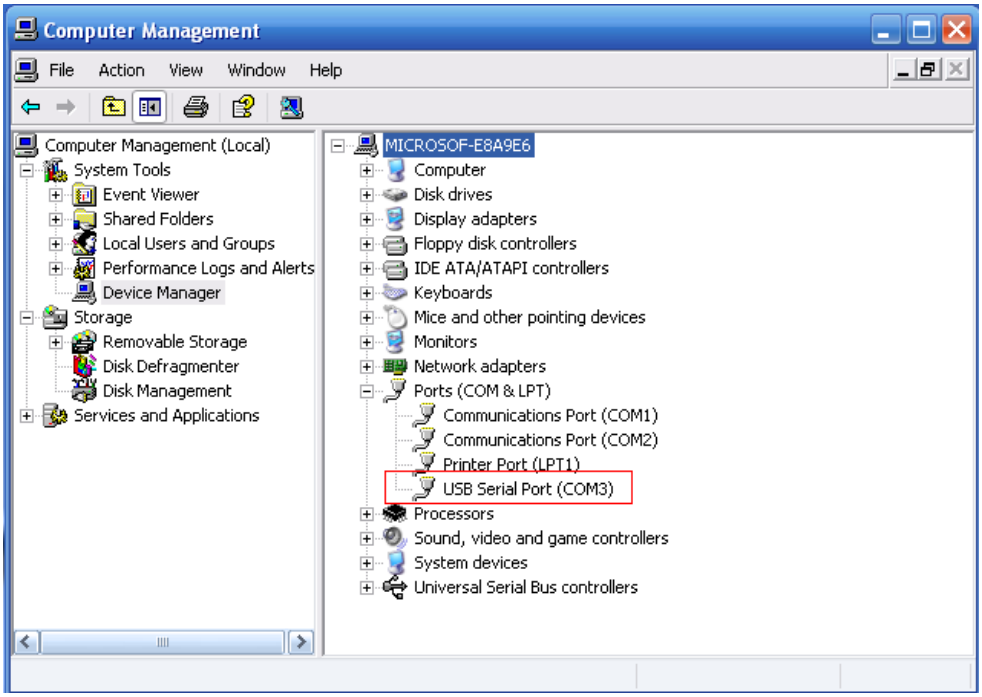


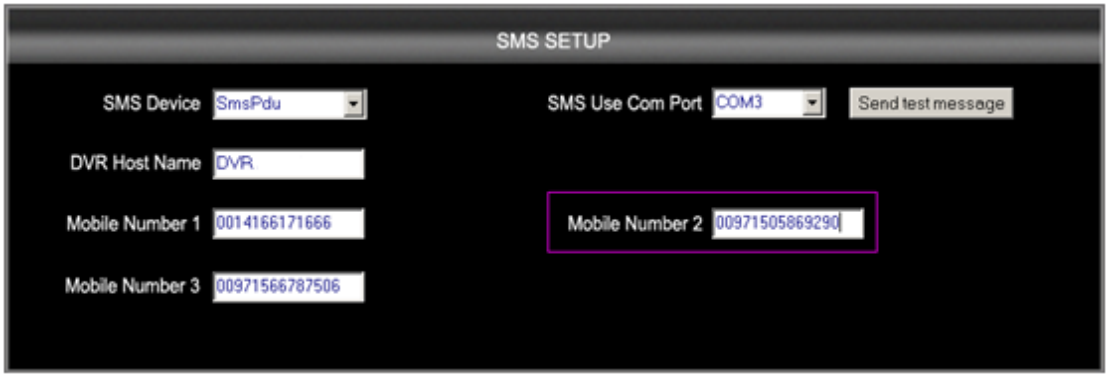
User can modify GSM modem's communicate parameters manually in C:\Program Files\NDVR Server\SMS_LIB as bellow:

After you insert the GSM MODEM, Firstly, you should install the driver.



When the driver is installed, the interface as below will be displayed:





2.5.1 EMAIL setup

【**SMTP Server**】SMTP server address, e.g.: mail.jstDVR.com,

【**SMTP Port**】SMTP listen TCP's port for connect request.

【**Auth. Type**】Logon mailbox, operator will select SMTP authentic type. Or select "simple login".

【**Login User ID**】Mailbox's ID.

【**Login Pass**】Mailbox's password.

After finished setup, user can press Send & Test to test whether email can be sent successfully.

【**Send To**】Set address of receiver.

【**Copy To**】Set another address of receiver to whom system sends E-mail.

【**Sender Email**】Enter email address of sender.

【**Email Title**】Enter title of the E-Mail to be sent.

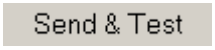
【**Email Screenshot As Attachment**】When alarm be triggered, the system will grab a picture, you can choose whether send the picture as attachment to the E-mail.

2.5.2 SMS setup

【**SMS Device**】Set the sms send mode, you can select the SMS pdu mode or the sms text mode.

【**SMS Use Com Port**】Set the SMS Use Com Port which the device connect.

【**NDVR Host Name**】Set a name to sign the NDVR which on the SMS displays.

【**Mobile number 1**】【**Mobile number 2**】【**Mobile number 3**】Set the mobile number to receive the SMS,SMS will be sent to the mobile which you set. Press 

to test whether the SMS can be sent successfully after setup.

2.6 Digital matrix setup

MATRIX SETUP
Matrix Group
SetGroup1
Video Out Port
Video Out 01
Video Out Standard
PAL
Video Switch Interval(Sec)
3 sec
Video View Mode
1 View
1
Video Window
Window1
Display Video Cameras In Window
Main camera channel
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
DISPLAY SETUP
Display Group
SetGroup1
Video View Mode
64 View
Video Window
Window1
Display Camera In the Window
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

2.6.1 Matrix setup

【Matrix Group】System operator can set a groups of video images to be sent out through matrix decode card, each group has different display mode. Up to 16 groups you can set.

【Video Out Port】Select the output port of Matrix card that you want to set, the total number of channels is decided by Matrix Decoder card.

【Video Out Standard】Set Matrix video out standard, you can select from PAL and NTSC.

【Video View Mode】Select video output display mode, there are 1split , 4 split , 6 split , 9 split and 16 split .

【Video Window】【Display Video Camera in window】After selecting video split mode, there will have corresponding display video window, select one camera or several cameras to show in the window. The Video cameras you can select are cameras of the local board card and IP Cameras. For cameras of board card, system use soft decoding to play to TV Wall, total

channels of them is not influenced by decoding channel. For IP cameras, system use hard decoding, total channels of them are influenced by decoding channels. For different work mode, the channels you can used are different, the available certain channels must be the first certain channels. If you disable hard decoding, you can't output real-time video of IP camera to TV Wall.

Note:

One camera is only showed in one window once. But you can show one camera in 2 windows through switching the main camera channel and sub camera channel.

【Video Switch Interval (sec) 】Set interval that each window shows cameras circularly when there have more than one camera in it.

2.6.2 Display setup

【Display Group】System operator can set a groups of cameras to display for fast preview, including its display mode and cameras. Up to 16 groups can be set.

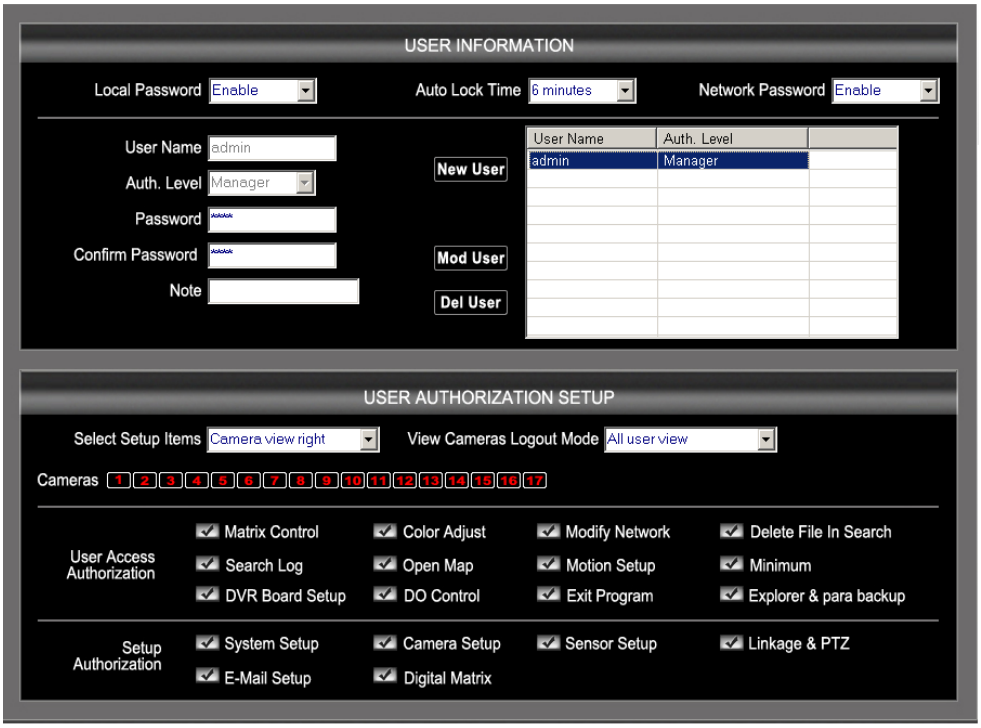
【Video View Mode】Set the split mode, the split mode is same as main window's display split mode. There are1, 4,9,13,16,20,25,28,33,36,40,49 and 64 partition mode.

【Video Window】【Display Camera in the window】After selecting video split mode, there will have corresponding windows; select one camera show in per window. The cameras include 64 cameras (the biggest of the system limitation), when the total channels (cameras of local board card and IP Cameras) are less than 64, some channels do not have image with black window.

Note:

One camera is only showed in one window once, but each camera can be displayed in any window discretionarily. E.g.: The 1st camera has been displayed in window1, and the 2nd camera has been displayed in window2. When change the 1st camera to be displayed in window2, the 2nd camera will be exchanged in window 1 automatically.

2.7 Password setup



2.7.1 User information

【Local Password】Select “Enable” to enable User Manage mode for local PC NDVR, and activate the lock button

in main window. Only authorized user can log into the System at User Manage Mode.

【Auto lock time】Select a time to enable system to lock automatically when there have no actions after this time.

【Network Password】Select “Enable” to enable User Manage mode for Client. When you enable this function, client must pass the authentication to connect with PC NDVR.

【User Name】Input new User ID in this box when add a new user to system.

【Auth. Level】Select user type. Only Manager can enter User Manage Window and have the right of user management.

【Password】Set new user or selected user’s password.

【**Password Confirm**】Confirm password again.

【**Note**】Input your description of this user.

【**New User**】Press

button to edit the user you want to add in the 【**User Name**】Blank. Input User Name, Note Name, Password, and Confirm Password. Select Manage Right (Administrator or Operator), and then click Add User to save.

【**Add User**】Up to15 users can be added to system except Admin. Click

icon to add new user you edited to user list.

【**Modify User**】Select a user from user list, then click

button to modify it.

【**Delete User**】Select a user from user list, then click

button to delete it.

2.7.2 User right setup

【**Camera View Right**】Select cameras can be viewed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to access all live images. To deny access, you can click the desired cameras button and the color will change from blue to gray (by default, user “admin” is super user, you can’t modify its rights, it has entries rights).

【Camera Playback Right】Select the cameras can be play backed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to playback video data of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【Camera Audio Right】 Select cameras whose audio can be heard by the use you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to check audio of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【PTZ Control Right】Select the cameras that related PTZ can be controlled by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras.

【User Access Right】Select operational tasks, granting or denying rights. Operational tasks are normally reserved for administrative, privileged accounts. Operators are rarely granted rights to adjust camera color, exit program, explore files etc.

When manager doesn't want some operators to manage disk or backup data locally, he should not check the two rights for those users. For example, "admin" doesn't want "user" to own the two rights, he should select "user" first, and click "Modify", and then, check the "V" in front of "Disk Management" and "Local Backup".

【Setup Right】

Select setup rights to grant or deny user privileges.

Chapter3 **IP Camera Setup**

Note:

For IP camera setup, its alarm and related setup is only available when you set remotely, the local setup of PC NDVR is not available for IP Cameras except Recording Schedule in ***Camera Setup.***

The remote setup interface of NV Series IP cameras is as below:

For DG Series EM-NDVR, the interfaces are not exactly the same as NV Series. Remote setup for DG Series EM-NDVR includes ***Server, Channel, Record, PTZ, Sensor, Alarm*** and ***User***.

But the ways of set are nearly the same. For details, please refer to our DG Series EM-NDVR manual.

3.1 Functional buttons

There are 5 buttons in each page. They are Upgrade, Restart, Time adjustment, Save and Exit.

Upgrade The system can upgrade to the server remote. Click this button, and select the right file.

Restart Some settings will only come into effect after device reboots.

Time Adjust Adjust date and time of DVS or EMDVR. The new date and time will accordant with NVR client computer.

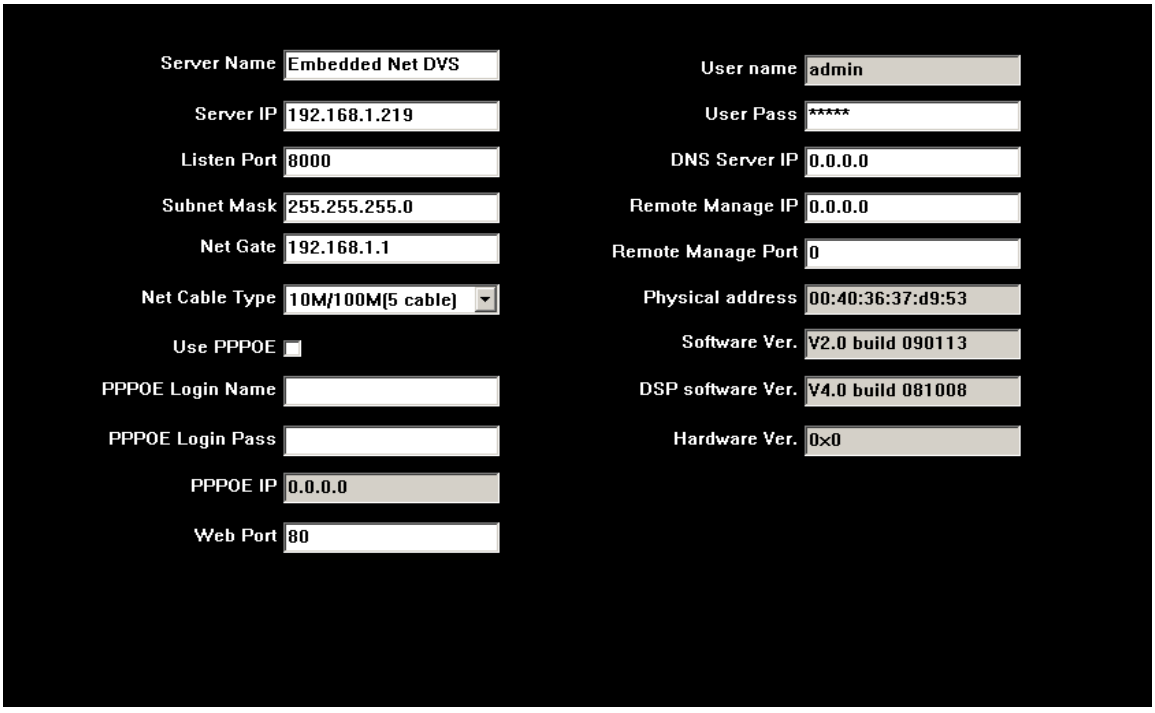
Save After setup is finished, click this button to save the setup.

Exit Exit setup.

Remote setup for DVS includes Server, Channel, PTZ, Sensor and Alarm.

3.2 Server setup

Press Server button to set server parameters remotely:



In the server window, some blanks' background are gray. Those parameters are read from foreside server, you can't modify them. Other blanks whose background is white, you can set them remotely.

【**Server Name**】Enter the name description for easy identification. This name delegates the foreside server. If use DNS to get IP, this name will be used.

【**IP configuration and related**】

【Server IP】
【Port】
【Subnet Mask】
【Net Gate】
【Net Cable Type】

These are network configuration; you can set LAN or Internet IP according to your need.

【Connection configuration and related parameter】

【If use PPPOE】
【PPPOE Login Name】
【PPPOE Login Pass】

If system uses PPPOE to connect with web, please select it and input the PPPOE login ID and password

【**User Pass**】Set the user password of DVS remotely, after that operation you should change the Login Pass to corresponding value in Add / Modify server. Otherwise, you can't connect the DVS correctly.

【**DNS Server IP**】If use DNS, input the DNS host IP address.

【Remote manage】
【Remote manage IP】
【Remote manage port】

Set the IP address and port of host server who will receive the message upload from foreside server

3.3 Channel setup

Press

button to set channel parameters.

This section contains the parameters to designate a name for every camera connected, to enable or disable show LOGO and OSD, and to set display type of OSD & LOGO as well as record resolution, record type, record quality and frame rate, etc.

【Camera】 Select the camera to be set from the drop- list.

【Camera Name】 Enter a name description for easy identification.

【Frame Rate】 Select the record rate of camera from drop-list.

【Midstream】 **【Sub Stream】** Select Midstream or Sub Stream for the current cameras.

【Resolution】 Set the resolution at which the video files will be recorded. Choices are DCIF, CIF, QCIF, 2CIF and 4CIF. The higher the resolution is, the more disk space needed.

【Stream Type】 Select video and audio or only video record.

【Image】 Set the quality of the image to be recorded. Select from worst, worse, normal, good and best.

【Bit Rate Type】 Select bit rate type from Variable Bit Rate (VBR) and Fixed Bit Rate (FBR) record:

VBR range= Poorest, Poor, Medium, Good, Best.

FBR range = 45 Megabytes/Hour to 400 Megabytes/Hour.

【**Max Bit Rate**】Select the maximum bit rate for Variable Bit Rate (VBR) record.

【**Show LOGO/ OSD/ Week**】If you check those boxes, system will show corresponding information on screen.

【**Position**】Set the position of OSD or Logo by entering the X and Y coordinate directly.

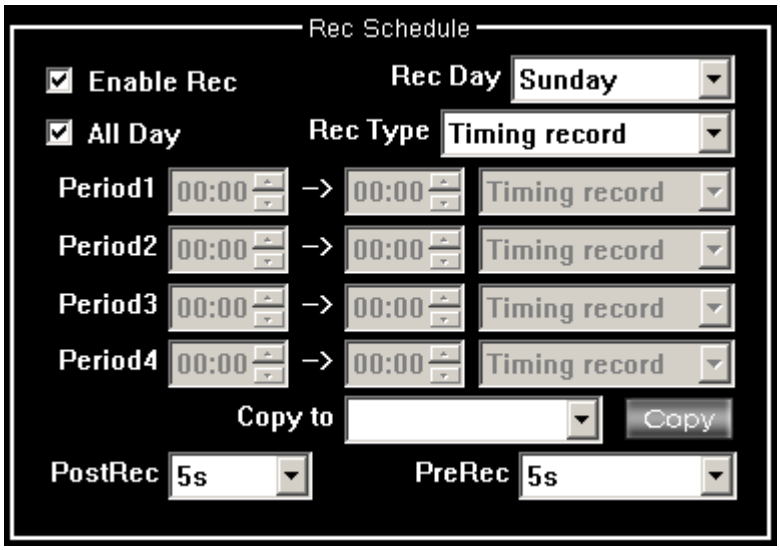
【**OSD**】Set the display attribute of the OSD & LOGO. There are four types of display modes: Clarity-Glitter, Clarity-Not Glitter, Not Clarity-Glitter and Not Clarity-Not Glitter.

【**OSD Type**】Select the type of OSD for the Week.

【**Privacy Mask**】You can check this box to set the privacy mask on the below image directly, and you can clear some privacy masks by pressing

button.

【**Record schedule**】You can set record schedule in following chart.



Note:

This record schedule is only available to EM-NDVR. There are 4 time segments every day. Every segment has a start time, an end time and a record type. The time segment is set in sequence; every segment can't be overlapped, included or skipped with any other.

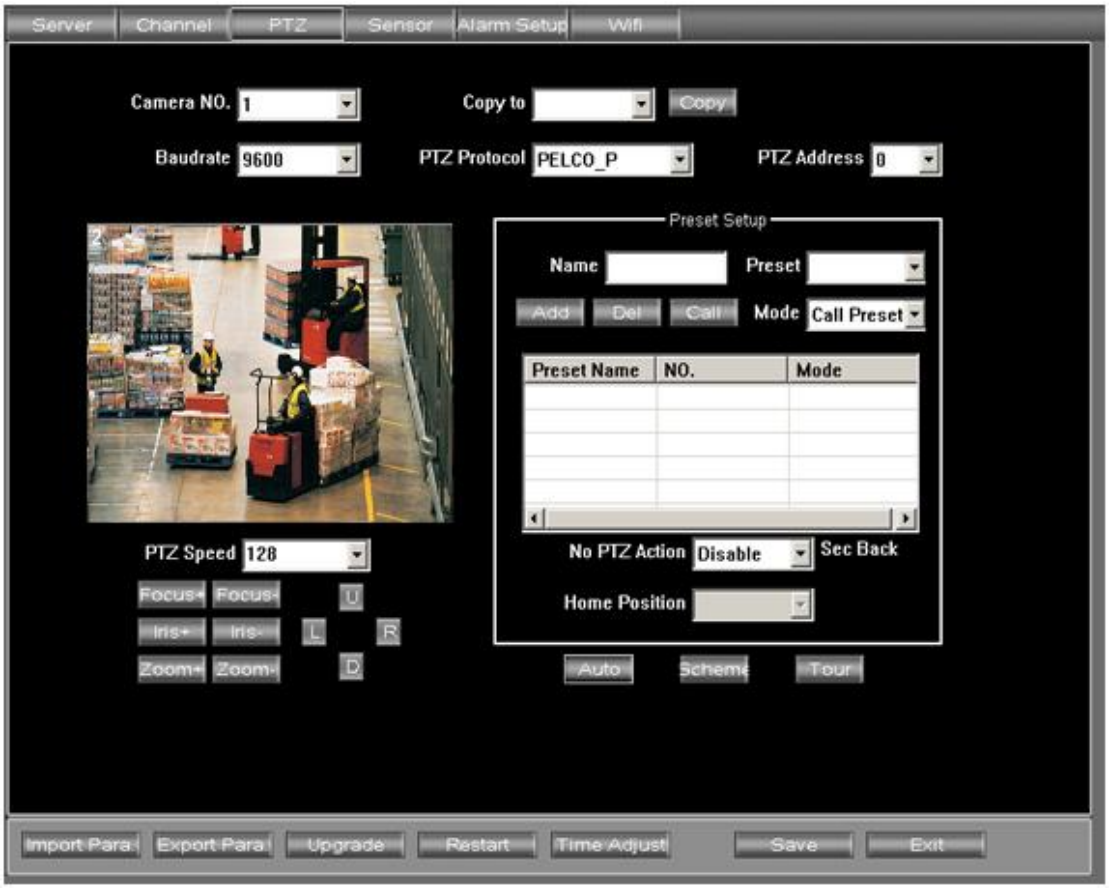
【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

, Set the time to post or pre the record.

3.4 PTZ control

Press button to set PTZ.



In this screen, you can define the PTZ protocol and set the Preset Position as well as the plan to execute them automatically.

【Camera】Select the camera to be set from the drop- list.

【Baud rate】Set baud rate according to PTZ protocol from the drop- list.

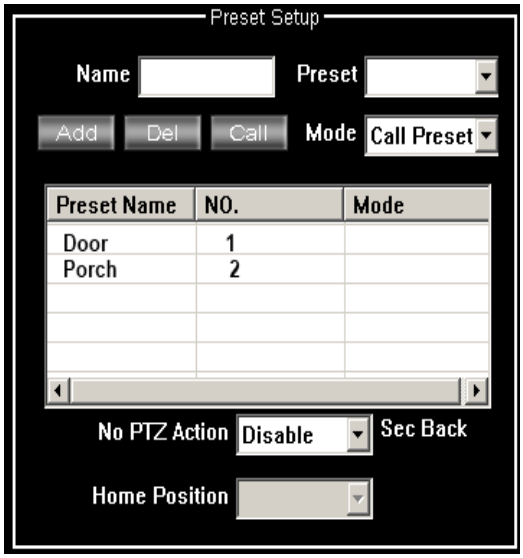
【PTZ Protocol】Select the communication protocol for the PTZ camera from drop-list.

【Copy to】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press button.

【**PTZ Address**】Set the address of the decoder, which must be matched with the value of dipswitch in the PTZ.

【**Speed**】Set the speed of the PTZ.

【**Preset position & schedule setup**】Define preset position and set time to call preset position automatically. System can add and delete plan time.

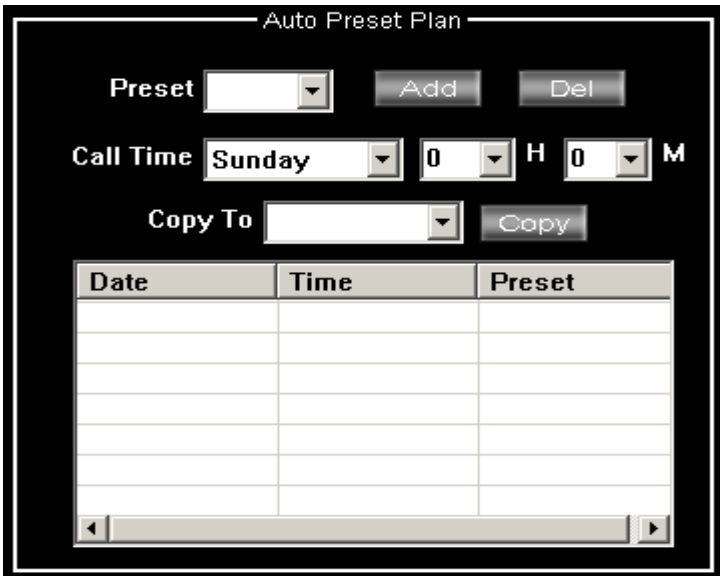


【**Name**】 Set the name for the current preset. 【**Preset**】 Set the preset number for the current camera

Add the preset by current configuration.

Delete the finished Preset.

Call the Preset if the Mode is Call preset. The mode is save preset; you should save the preset and shouldn't call the preset.



【**Preset**】 it can add the preset into the Preset Schedule, the preset set completed in the Auto Pre yet.

【**Call Time**】【**Schedule List**】Set the time of the preset should be call at that time.

Tour Group

Add the Preset cameras into the Tour Group and set the Stay Time for one tour group.

3.5 Sensor setup

Press

button to set sensor parameters.

【**Sensor NO**】Select one sensor to be set.

【**Sensor Name**】Enter the name description of the sensor.

【**Type**】Select alarm type (sensor type) from “NO”(Normally Open) or “NC”(Normally Close).

【**Policy**】Selecting “Sensor Alarm Handling” firstly, handling policies will be available as follows:

On screen warning—Display the alarm information on the monitor.

Audio warning—Indicate the alarm with voice.

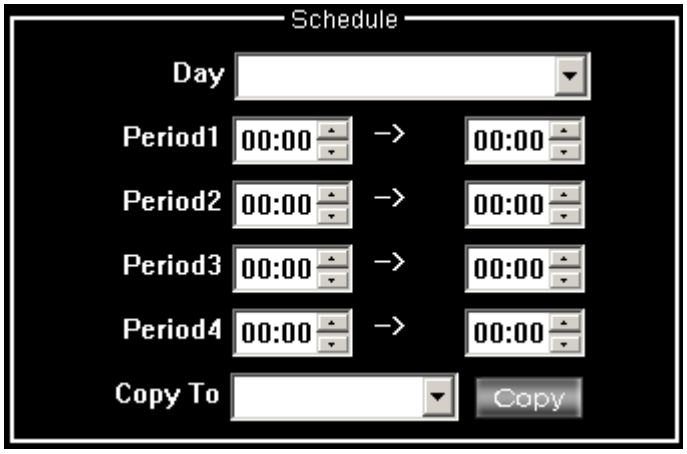
Upload to center—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【**Trigger record camera**】Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【**Preset**】Set camera that will move to its one preset position when the alarm happened.

【**Schedule**】Set alarm input precaution time firstly, then set time segment according to the sequence. The time of each segment should not overlap the others and no skips are allowed. After the precaution time of a certain day is set, you can copy the parameter to other dates by select a day and press copy button.



【**Copy to**】After finishing one channel, if you want to set any other channels’ configuration as the same as this camera, you can select channel number from drop-list, and press

button.

3.6 Alarm setup

Press

button to set alarm parameters.

【**Camera**】Select a camera to be set from the drop-list and you can copy the configuration to the other cameras by clicking copy button.

【**Alarm Type**】Select alarm type: Motion detection, Tampering alarm and Video Loss.

【**Level**】Select sensibility levels from 0 (the lowest level) to 5 (the highest level) for the alarm.

【**Set motion detection areas**】Left-click mouse and drag it on the screen to select motion detect area, you can select the whole area or many areas. Also, you can clear one or whole area by press the button clear and test the effect by clicking test button.

【**Policy**】Selecting “Handling current alarm” firstly, handling policies will be available as follows:

On screen warning—Display the alarm information on the monitor.

Audio warning—Indicate the alarm with voice.

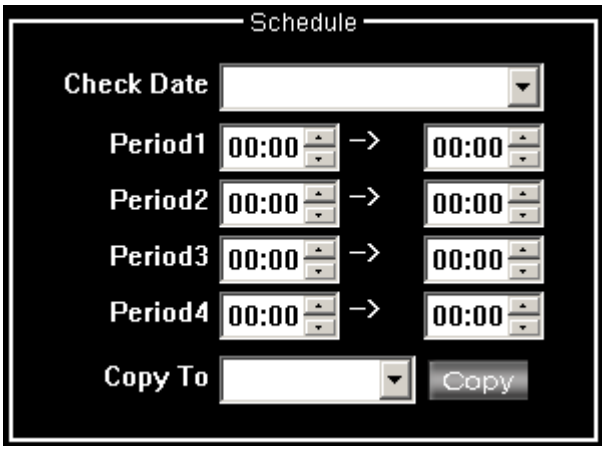
Upload to center—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【**Trigger record camera**】Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras

will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【Schedule】 Set alarm input precaution time. Select date firstly, then set time segment according to the sequence. The time of each segment should not overlap the others and no skips are allowed. After the precaution time of a certain day is set, you can copy the parameter to other dates by select a day and press copy button.



【Copy to】 After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

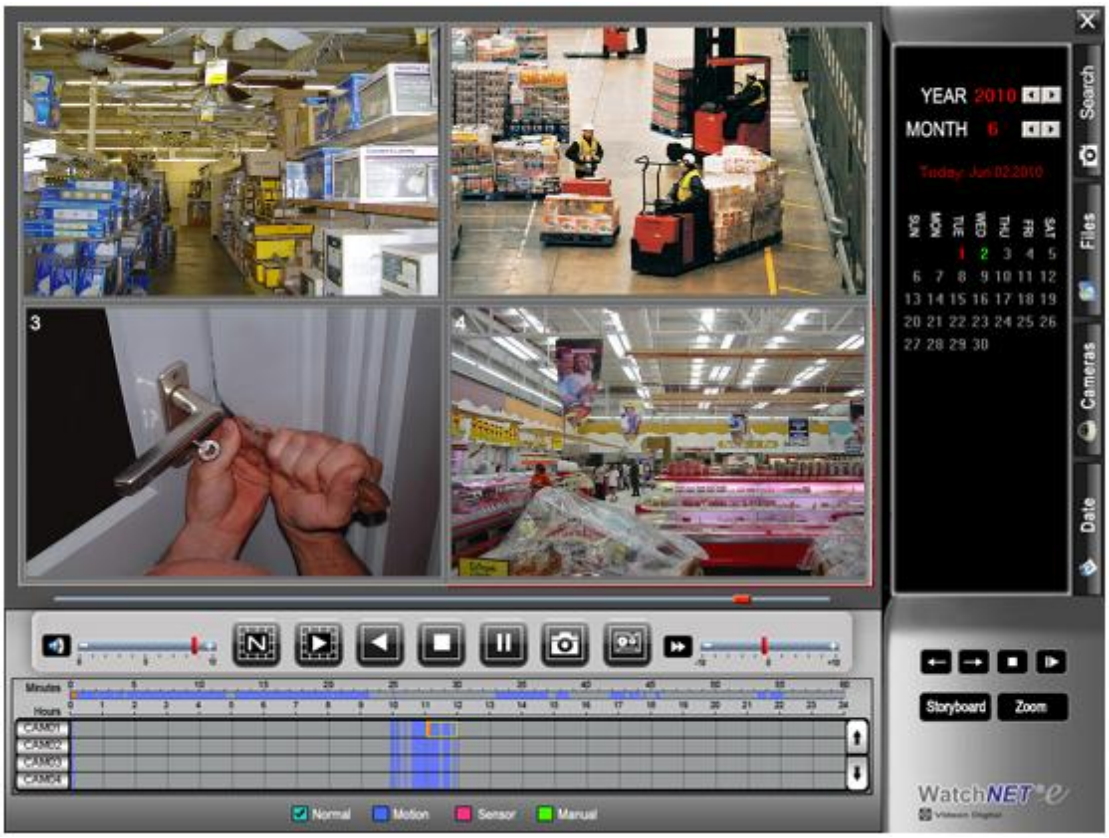
button.

Chapter4 **Playback**

4.1 Main interface

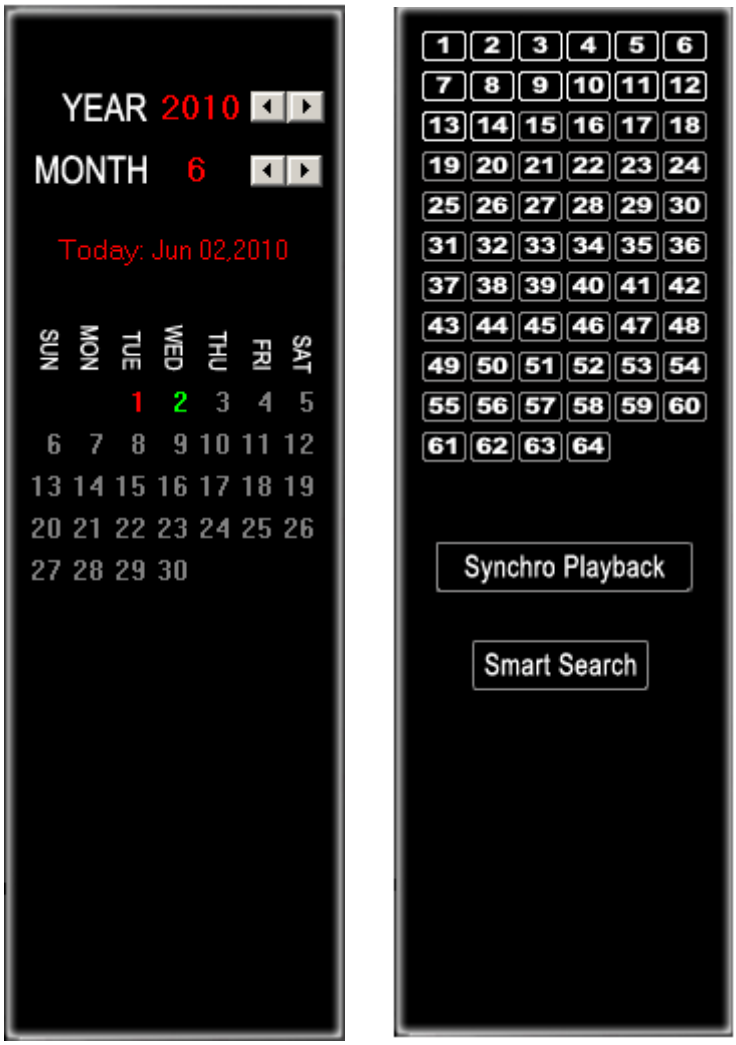
Click

button in main interface to enter playback interface.



Press this button , the select camera will reverse playback, and press it again, the reverse playback will stop.

4.2 Playback



4.2.1 Select date

Select one window (the 1st one in default), and then click

button to show the date.

The red dates contain recorded data. The green date is the current date. The gray dates signify no data. Only those blue ones can be selected and when they are selected the camera window will appear automatically to show which cameras has record data.

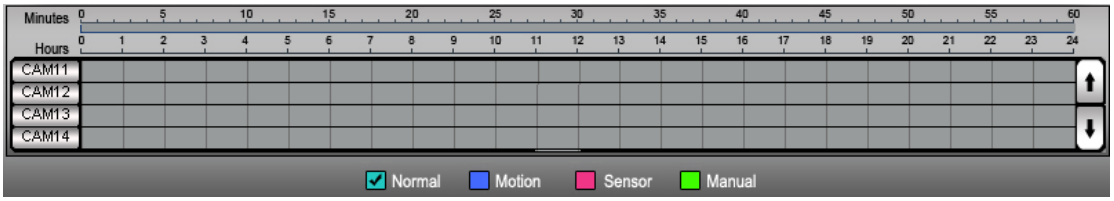
Click or to change month and year of search data.

You should select the date first; otherwise, you can't entry the all sub-playback interface. The date can't be selected in the sub-playback interface.

4.2.2 Select Record type

Press the icon before "Motion" when you want to playback motion recording. Others are the same.

When there is no record data of the selected record type, the below picture will be shown.



4.2.3 Select camera

After date selected system will show the camera state of corresponding day, or click

button directly to show the cameras state of current day. The number button with navy red means this channel has record data. By pressing it directly on the numerical panel, NDVR system will play back recorded data from the first file.

1. Synchronic play

Click

button to synchronize the time of all playback channels. You can also keep all channels synchronically in pause and Next Frame.

2. Smart search

(1). Function introduction:

This function allows users to draw a zone on a video image and do a search for any motions, missing objects, or unattended object events occurred in that zone. It can help you find recorded video you are interested in.

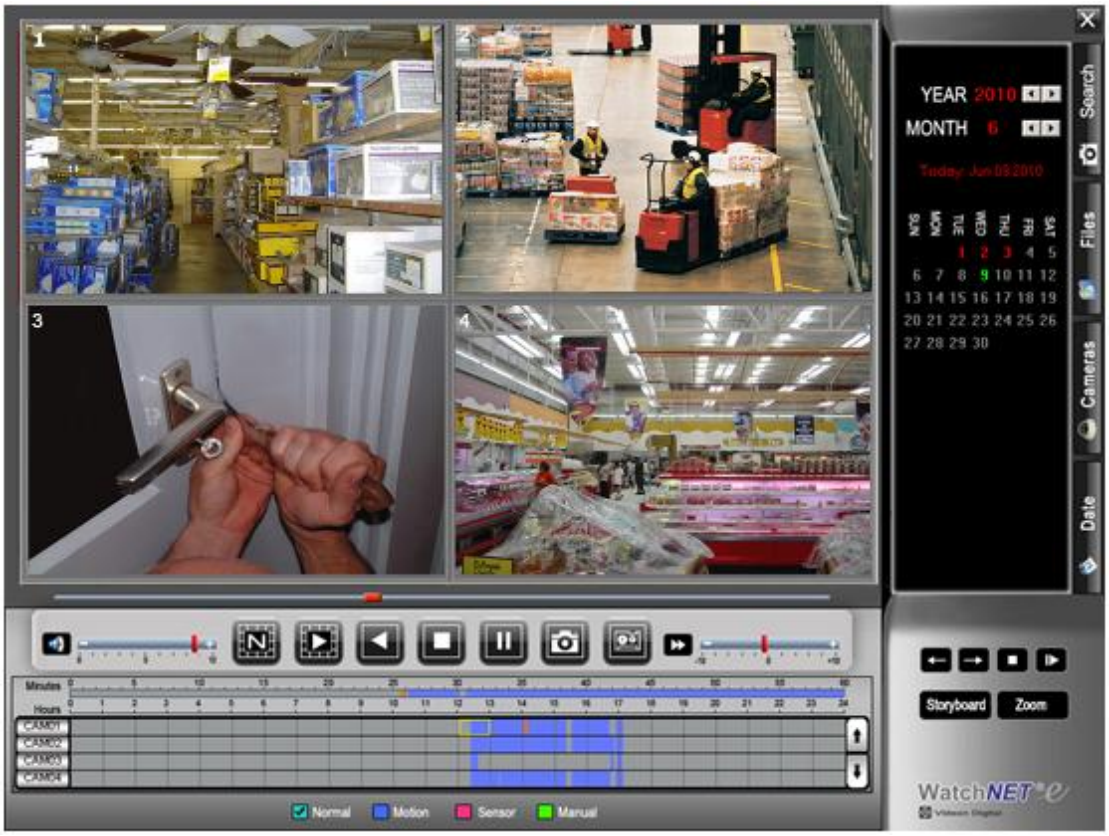
Note:

Smart Search accuracy is decided by sensitivity value and threshold in Motion Setup.

(2). Operation and example

Press Smart Search button, then select a search area, the system will play all motion occurred within this area from previous 3 seconds to next 3 seconds when the motion occurred. Pressing this button again will end smart search. E.g.:

1) There is a PTZ on the display rack (Picture ①);
2) Disappears on (Picture ②);
3) If you want to know where the telephone is, you can select this area on the image to do a smart search when playback the video.



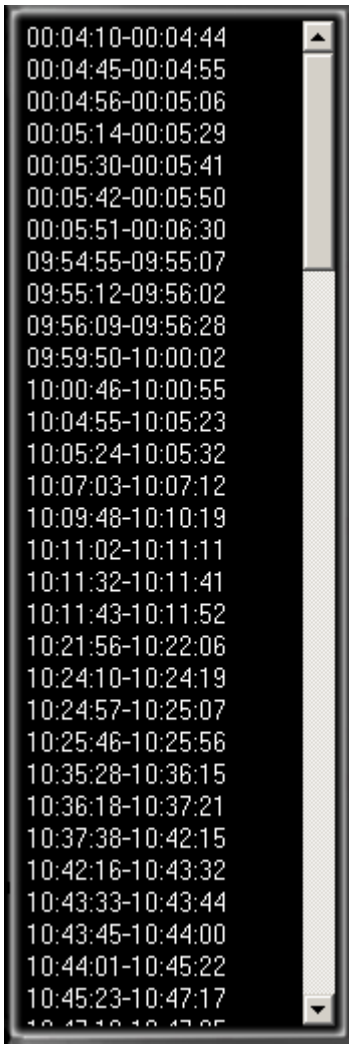
When you press the smart button, you should select the area percent by single clicking the right mouse, if the motion percent of the area above the select percent, it will be shown out.

Note:

Press synchronic button while smart search is running, system will end smart search;

The sensitivity of the smart search is same as motion detection. If you set a very low sensitivity, system will search even that there is no motion in the specified area. Contrarily, if you set a high sensitivity, it is possible that system will not search when there are some small range motions in the specified area. So you should set the sensitivity according to the surroundings.

4.2.4 Select file

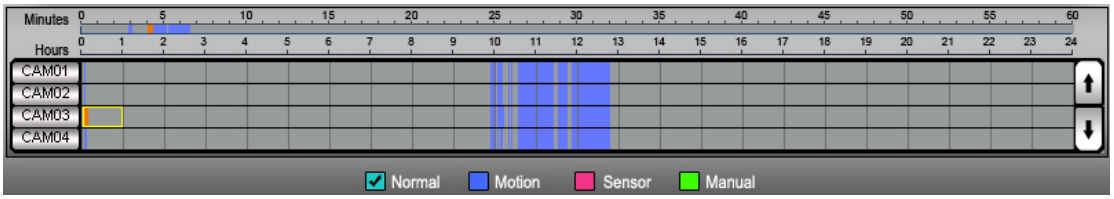


After selecting the camera to play user can click

button to show all the files of this camera.

By default, system will play back video file from the first one. In this screen you can select the file you want to play by clicking it directly.

The camera list below the window shows the recorded data of the day you selected. Double click any time with record data, a red mark will be there. Then use to enlarge the time bar, so that you can select an exact time you want to playback



When there are too much record data, you can use to select.

Press or button to see the recorded data of other cameras,

The red bar means the exact time when system is playing back now.

4.3 Play file and related operations

Press this button to set partition mode of Window, there are 1， 4 ， 9and 16 splits. To reduce the load of CPU and get best effect, you should select the partition mode according to the record channels amount and resolution. There is a referenced configuration sample as below:

Computer configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB

Memory: 512MB

HDD: 120G (IDE)

Recommended channel configuration for playback:

NDVR Board Channels	Record Resolution	Recommended Playback Channels
64	CIF	4
48	CIF	4
40	DCIF	4
	CIF	4
32	DCIF	4

	CIF	9
24	DCIF	9
	CIF	16
Less or Equal to16	4CIF	4
	DCIF	9
	CIF	16

Press button to open all playback windows in sequence according to the order of the cameras.

Press button to close all playback windows.

Previous / Next Minute: press this two buttons to look previous or next minute.

Next frame: press this button continuously to play video next frame, the speed is determined by the following playing speed adjustment bar.

Play/Pause: This button will alternate between Play and Pause. When it is playing, it will show and press it to stop, and then the button will show . When you select reverse playing, it will show to play by pressing it.

Stop: press this button to stop playing.

Image zooms out. Press this button, Left-Single-Click an image; quarter of the image will be enlarged. Right-Single-Click the image again, it will resume the normal.

Adjust the voice: drag the bar to adjust the voice and click the left button to clear the voice.

Adjust playing speed: drag the bar to adjust the playing speed and click the left button to resume normal playing speed.

Note:

It is not suggested that multi-channel (more than 10 channels) record or playback simultaneously unless your PC has an advanced configuration, because the data throughput of HDD might be too high. Multi-channel search in client and server are the same except their paths. In client, they are in local; in remote search, it searches among the record data in server in the local network.

4.4 Capture picture

Click capture button to capture a still picture. When one is captured, there will be a dialog to ask for a file name. After your confirmation, you will be asked to input the save path. When you capture a picture next time, it will be saved to the previous path without ask you again. But you can modify or delete the save path in a file named system, with INI as suffix in SetPara.

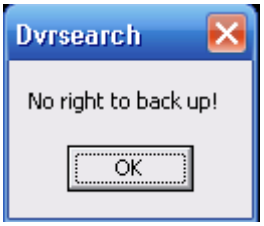
Note:

The size of the image is that of the playing window.

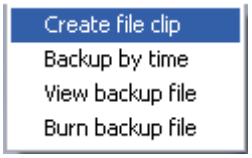
4.5 Backup

Note:

If user has no right to backup, he will be forbidden to get access to “Create video file clip” and “Backup record by time”. When he clicks the two options, the dialog as below will be shown:



Click button , there are four items to be selected as below:

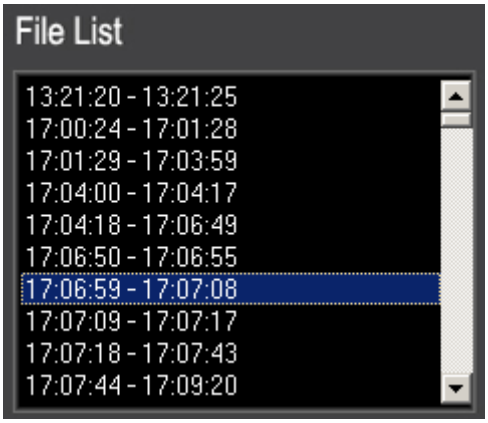


4.5.1 Create file clip

Press Create file clip to create file clip after you entered ***Backup***.

【Select channel and save path】 Select channel and save path of the backup file on the top of interface.

【File list and attribute】 Select a file and double-click it to play and its attribute will display below the list , including begin time, end time, file size, resolution, frame rate etc.



【**Play control button**】User can press and drag slider on to control the player time.

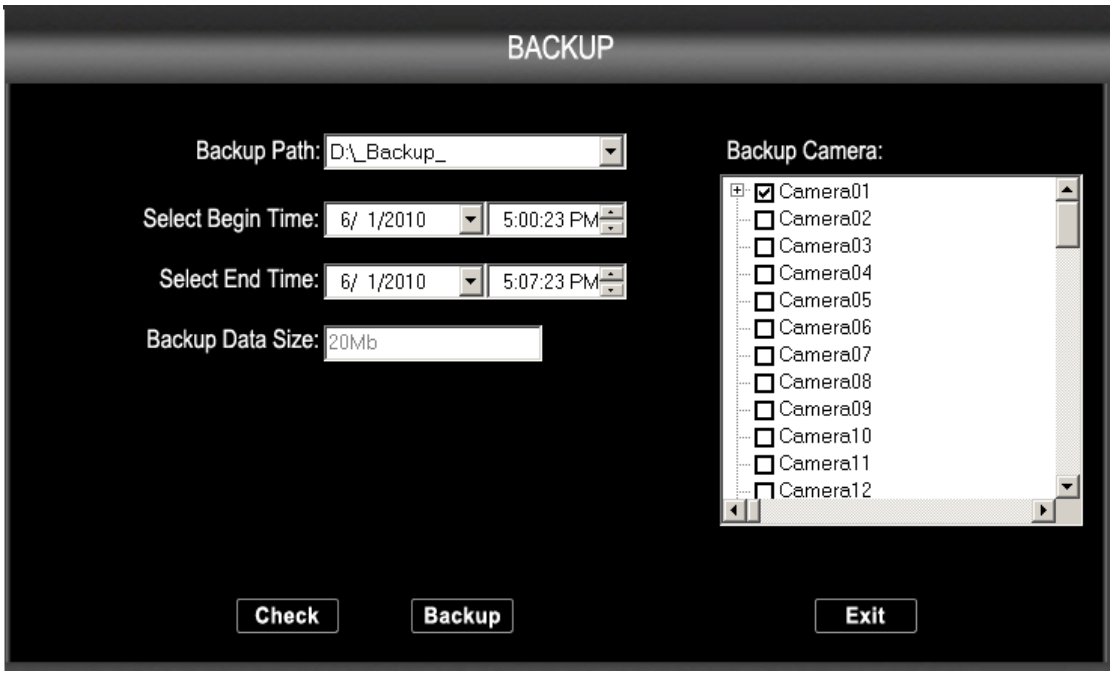
【**Beginning and stop position setup**】After you select a time, press button to set it as the beginning time, and then drag the bar to select another time and press button to set it as the end time. When you finished, the file attribute on the left will show the size of the file to be created.

【**Save file**】After you set the beginning and end time press button to save the file, and it will ask for the file name named by you.

【**Voice control**】Click to control voice, press it to clear voice.

4.5.2 Backup by time

Press to enter backup by time feature.



【**Backup Path**】Select path for the backup file, User can backup record file to CD.

【**Backup Camera**】Select the backup camera. User can select more than one camera at one time.

【Select begin time】【Select end time】Select the beginning time and end time of the file to backup.

It can backup the data feature and remove file unite function when backup, so that backup procedure is faster.

You can check the file's value by pressing

button to show its total value.

【Backup Date Size】 Show the size of the backup file. If user backup recording file to CD directly, the date size should not more than 650M.

Note:

If user backup recording file to CD directly, the system disk volume's(C volume in general) free space should not less than twice of the backup date size. Because system volume will be used buffer area when burn CD. For example, if the backup date size is 450M, so, the system volume's free space should more than 900M.

The process of burning CD:

1) Select the CD-ROM as backup path, and select the camera and time;
2) Check the backup file value;
3) Backup the file to the temporary file in the last volume if there is enough free space. Otherwise, write backup file to the last second volume;
4) Write data to buffer;
5) Write CD;
6) Delete buffer and temporary file.

4.5.3 View Backup file

Copy Player: Copy the file player in the Save path.

4.5.4 Burn video file to DVD/CD

Add File: Add selected file.

Del File: Delete selected file.

【Burn CD drive】Select CD-ROM driver.

【Volume label】Set the CD's label.

【Total file size】Show the size of all files will be burned to CD.

Burn CD When you finish your setup, click this button to write file to CD or DVD.

Erase CD Clean up the data of CD/DVD.

Open CD Open the CD-ROM.

Close CD Close the CD-ROM.

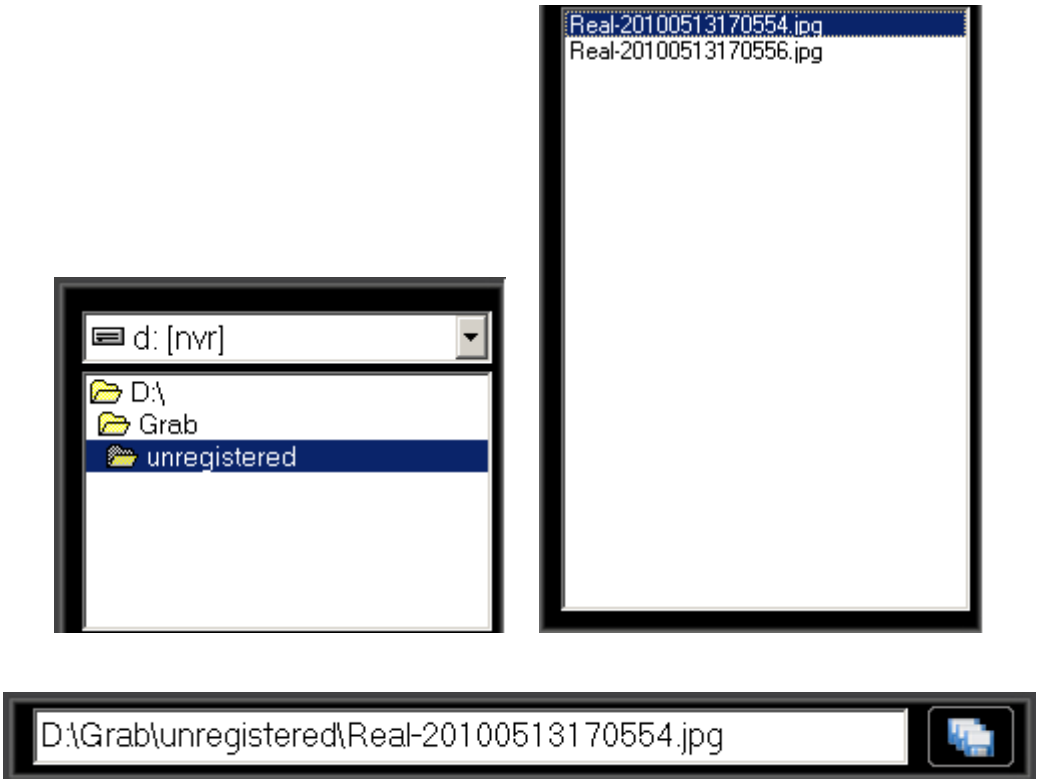
It supports DVD or CD disc backup directly, max support 4.3G DVD disc and user can erase DVD-RW disc and write again, all work needn't install third burning software.

4.6 Search captured picture

Click

to enter the search captured picture window:

【Select pictures from directory and file list】You can select a captured picture from directory list and file list in local disk and the file name will show in the top of the window.



Note:

If you want to save the reworked picture in another file, you can change its name and path here, with BMP or JPG as suffix. Then click the button .

【Related operations】

Save the reworked picture.

Functional buttons of picture disposal.

When the result of disposal is not good click it to the default.

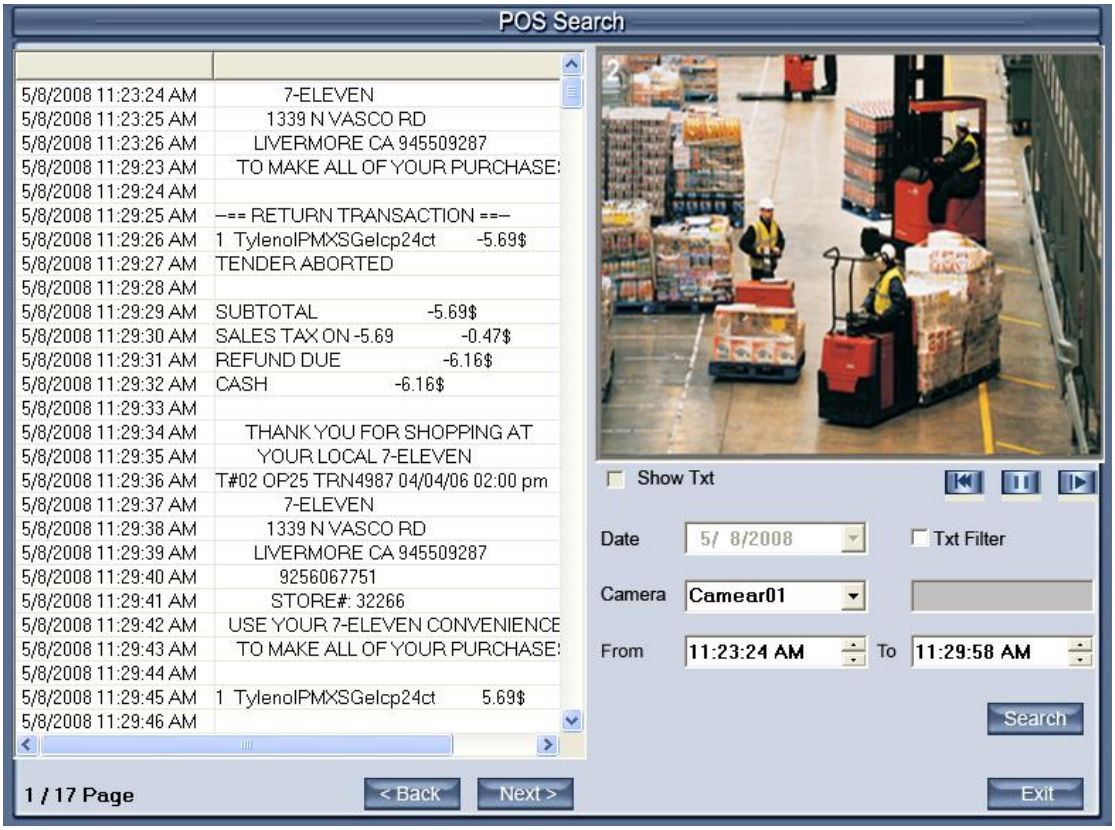
Print picture, when the image is wider than 400 pixels, it will be printed smaller. On the other hand, it will be printed bigger.

When it's bright, with the mouse moving, part of the picture will be enlarged.

Delete current file or delete all files.

4.7 POS Playback

Press the button PS; you will see the interface as below:



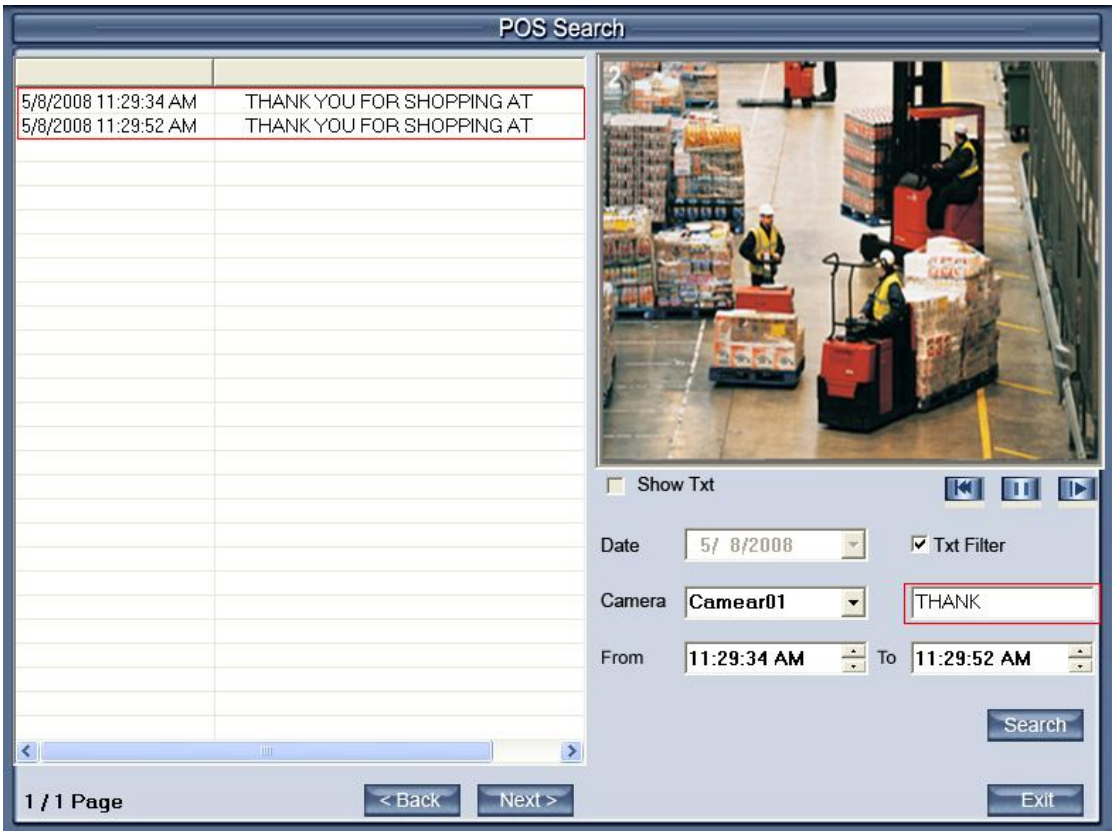
Show Txt: show the txt on the screen (if you checked “Text OSD to NDVR board” in the Cam setup, the show txt would be invalid).

【Data】: Select the search data.

【Camera】: Select the search camera.

【TXT Filter】: Search the content including the word.

E.g.:



The word of the TXT Filter is THANK, then, press the Search, the content display all the Pos messages with the “THANK”.

From ... To: Select the begin time and the end time.

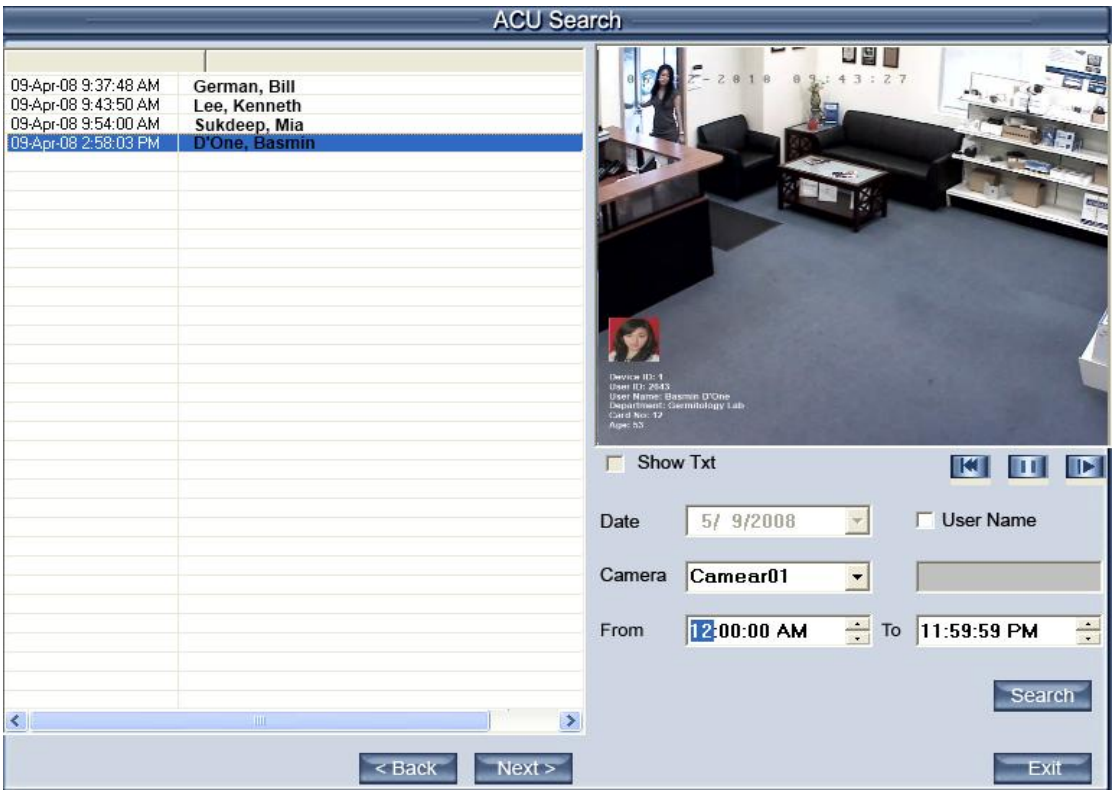
Press this button to search the record for the setting setup.

Press these button to back or next the display page.

4.8 ACU Playback

Press the button

; you will see the interface as below:



Show Txt: show the txt on the screen, (if you select txt overlay in the Cam setup, the show txt is invalid.

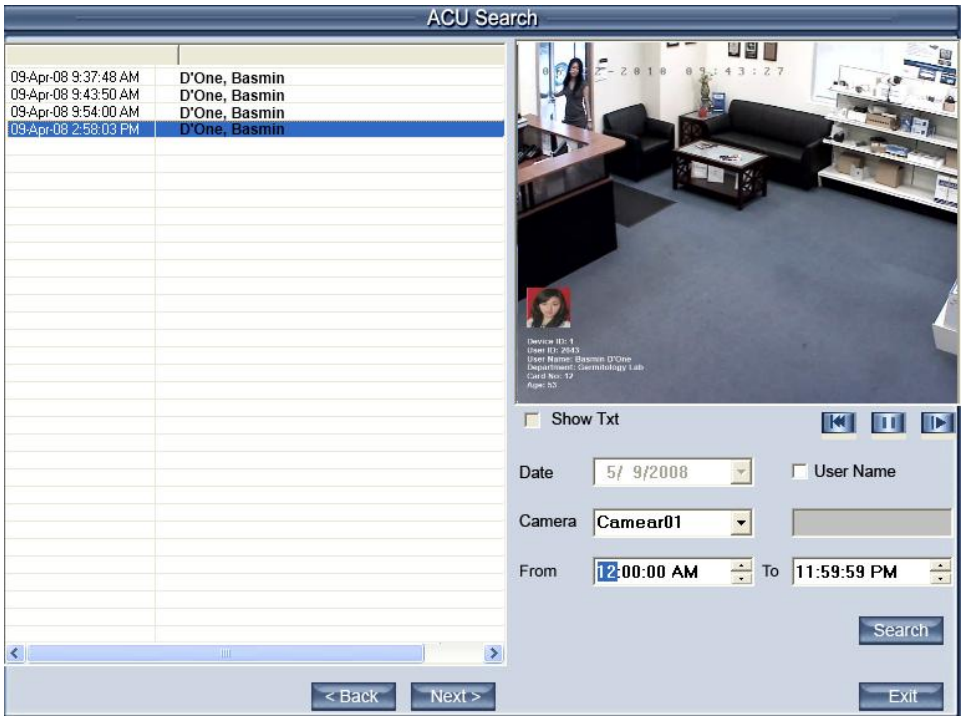
【Data】:Select the search data.

【Camera】: Select the search camera.

【From... To:】Select the begin time and the end time.

Press this button to search the record for the setting setup.

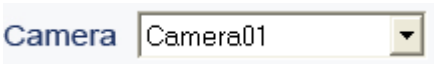
User Name: Search the ACU record with the name input in the blanks. E.g.:



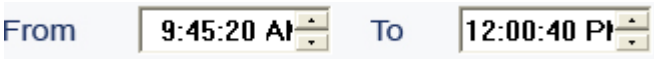
Input “D’One” in the User Name, then press search, the content will display all the ACU messages with the user name “D’One”.

4.9 ICON Playback

Press this button CP, you will see the interface as below:



Select the cameras.



Set the begin time and the end time of the record,

set the time of the one view plays. E.g.: as the above image, the time from 9:45 to 12:00, it include 135 minutes between the begin time and the end time, the screen is 4 views, the first view show the 0-10 minutes' record, the second view show the 10-20 minutes' record, .., when the 4 views plays end, it will play the second 40 minutes until the 135 minutes all end.

Chapter5 **IE client**

The client user can view video of NDVR Server through Internet Explorer, The default web server port is 80; if user changes it to other port, user should add this port number after domain name when visit the video of Server through Internet Explorer. E.g.: http://192.168.0.119:1280.

5.1 Functions of IE Client

1. Video display and video storage;
2. Audio input;
3. Searching and playback video image locally or remotely;
4. Control PTZ and speed demo remotely.

5.2 Main interface

When you connect foreside server successfully, you should input valid User ID and password in left up of the interface to acquire rights to play video and other operations.

5.2.1 Connection operations

Press Login will connect the NDVR Server's camera video from Camera01 and press Logout will disconnect all connections. Main Strean Select the Main Stream or Sub Stream for current cameras Server's channel is more than channels that you selected partition mode, you can use button to display NDVR Server's video in sequence. Pressing button will switch full screen mode and Right-Single-Click image can back to normal mode.

5.2.2 Connection/Record status

This icon indicates the current connection and their record status:

Gray: Not connected;

Navy blue: Connected with no recording;

Green: Connected with recording.

You can change the record status by pressing corresponding number button or change status of all connections at the same time by pressing button.

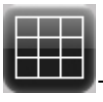
5.2.3 Partition mode

You can set the partition mode by pressing corresponding button on the right of main interface. It has the following partition modes:

—1partition mode;

—4partition mode;

—6partition mode;

 –9partition mode;

—10partition mode; —16partition mode.

5.2.4 PTZ Control

Most functions of PTZ control are same as PTZ Control panel in NDVR Server.

5.2.5 Quit program

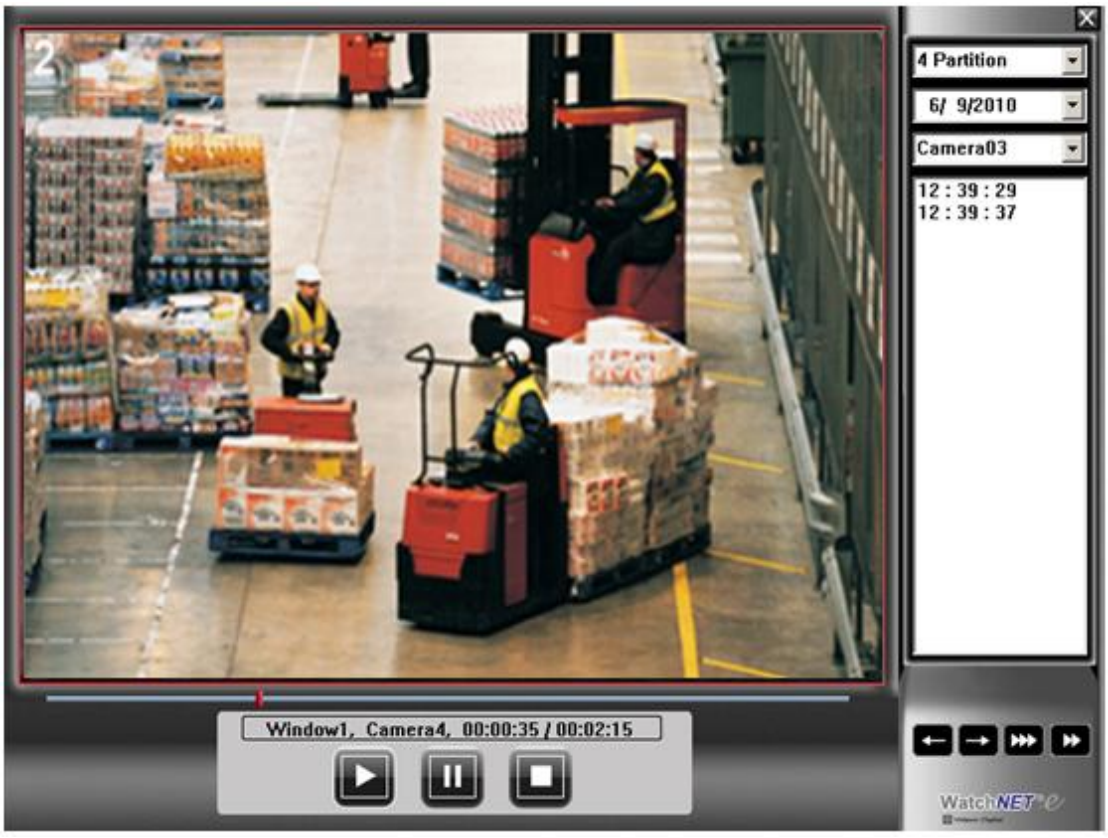
Press

button to shut down the IE Client.

5.3 Local search

Press

button to enter local search:



5.3.1 Display setup and data information

In this area, you can select display partition mode, date, video channel and its video file named according to time.

5.3.2 Playing operation area

In this area, you can operate video playing:

【Video-playing time adjustment】 Press and drag slider bar to adjust video-playing time

【Information display panel】 Display current window name, camera name and record data information.

【Playing-control buttons】 : Play, Pause, Stop

【Single frame play】 : Previous frame, next frame

【Playing speed control】 : Slowly play : Fleetly play

5.4 Remote search

Press

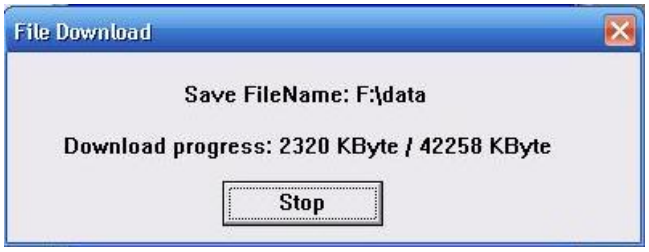
to enter remote search.

Most functions and operations of Remote search are same as playback; different feature is that remote search added download feature.

When you playback remotely, you click button to save video of current channel you selected. After finishing it, system will inform the save path.

5.4.1 Fast download record data

In the playback mode, select one camera that has record data, open file list panel, select one record data file, and click Download button, the selected data file will download fast.



Note:

When user use IE client to visit NDVR server, If connect successfully, there will be four partitions blue window. If connect unsuccessfully, the reasons possibly are:

1) The Web server port has been used by other programs;

2) Your computer didn’t download the player plug normally. The reason may be the jurisdiction of your computer is too high, or your computer has plug filter.

Chapter6 **Mobile Client**

Mobile clients in our software now support different kinds of mobile phones, such as Nokia, BlackBerry and Iphone, etc. You can view any cameras, including board card cameras and IP cameras supported by our software, even megapixel cameras. And you don't have to set dual-stream now.

6.1 Recommended Mobile Phone Requirements

1. Before you run Mobile Client, please check if your mobile phone supports JAVA and comply with following applicable standards:

   CLDC version: CLDC-1.0

   MIDP version: MIDP-2.0

2. Your mobile telephone should have GPRS or CDMA to transport data.
3. Set Internet as the access point of your phone call.
4. When you want to view some megapixel cameras, the memory of your mobile phone should be great.
5. Select "Enable" to allow the PDA to connect With NDVR server in the Network setup of the NDVR system.

Note:

GPRS is charged by data flow, so shut down the Mobile phone application if you do not need view cameras.

6.2 Download software

You have following methods to download our mobile client software:

1. Download through wireless technology (in Wireless LAN) such as Blue tooth, infrared.
2. Copy mobile client software to phone directly through data cable.

3. Download mobile client software through OTA (in WAN), it will describe as follow:

Enter “http://IP:PORT/ MobileDvr.jar (and another is MobileDvr.jad)” in the address bar of the mobile telephone internet explorer to download the setup package of the Mobile Client.

Note:

IP: the IP address of the NDVR server.

PORT: the Port of the IE client of the NDVR server.

When you download mobile client software on WAN, you must be sure that your mobile phone connect with Internet correctly.

When you are not sure which program you should download to your phone, you can only enter http://IP: port/mobiledvr, then, you will enter the following interface

Select one and then enter it. When you are using BlackBerry, you would better select the “BlackBerry.jad”. If you choose “MobileDvr.jad”, the image quality will be too poor.

6.3 Install and connect

6.3.1 Installation

You can install the mobile client as install java games in your smart phone, install mobile client in your smart phone directly (downloaded the program in WAN or LAN) or use the application supplied by the manufacture of your smart phone to install mobile client.

6.3.2 Connection

After you installed mobile client in your smart phone, you should be sure that your smart phone connect with Internet correctly. Currently, mobile providers support WAP and WEB access point, mobile client must use Internet as access point (AP) to access NDVR Server remotely.

6.4 Login Interface

After you downloaded and installed the MobileDvr software, you can run it on your mobile phone to enter the login interface.

【Addr】Fill the IP address or domain name of the NDVR server.

【Port】Fill the port through which connects to NDVR Server.

【User】/【Pass】Fill the valid user with its password to visit server from MobileDvr. And the server has enabled rights management, login user ID and password from client will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

Press ***Login*** button to connect with the NDVR server.

6.5 Camera List

The MobileDVR will enter the Camera List after you connect with the NDVR server successfully.

When the camera you want to view is selected, click “Options” and then select “Preview” to enter the preview GUI.

6.6 PTZ control

Press the “Options” button and select the “PTZ” button to enter the PTZ control interface.

【Orientation control】: Select the button and press “OK,” it will change into . After that, by pressing and holding the up, down, right and left buttons, the PTZ camera will move up, down, right and left.

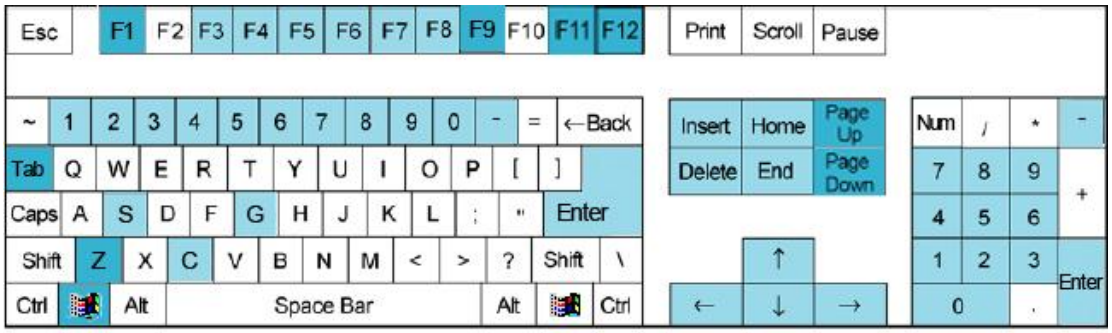
【Zoom + / Zoom -】: Control the zoom function of the PTZ camera.

【Focus+/ Focus -】: Overrides the auto-focus setup of the PTZ camera, adjust focus the image.

【Iris on/off】: Overrides the PTZ cameras auto-iris and brighten or darken the image.

Appendix A: Fast key reference

Please refer to shortcuts keyboard setup


Esc
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
Print Scroll Pause
~ 1 2 3 4 5 6 7 8 9 0 - = ←Back
Tab Q W E R T Y U I O P [ ]
Caps A S D F G H J K L ; " Enter
Shift Z X C V B N M < > ? Shift \
Ctrl Alt Space Bar Alt Ctrl
Insert Home Page Up
Delete End Page Down
↑
← ↓ →
Num / * -
7 8 9 +
4 5 6
1 2 3 Enter
0 .

This color key denotes PTZ control.

This color key is other function control.

PTZ control:

Key	Function
↑	Up(in the status of preview for PTZ control)
	Play in fast speed (in the status of instant playback and review playback)
↓	Down(in the status of preview for PTZ control)
	Play in slow speed (in the status of instant playback and review playback)
←	Left(in the status of preview for PTZ control)
	Play last frame(when pause in the status of instant playback)
	Play again(in play condition of review playback)
	Play last frame(in pause condition of review playback)

→	Right(in the status of preview for PTZ control)
	Play next frame(in the status of instant playback)
	Play in normal speed(in play condition of review playback)
	Play next frame((in pause condition of review playback)
Home	Zoom-
End	Zoom+
Insert	Focus-
Delete	Focus+
C、−、 Num0-9G 、Enter	Presets Control Operation Call preset
C、−、 Num0-9	Presets Control Operation

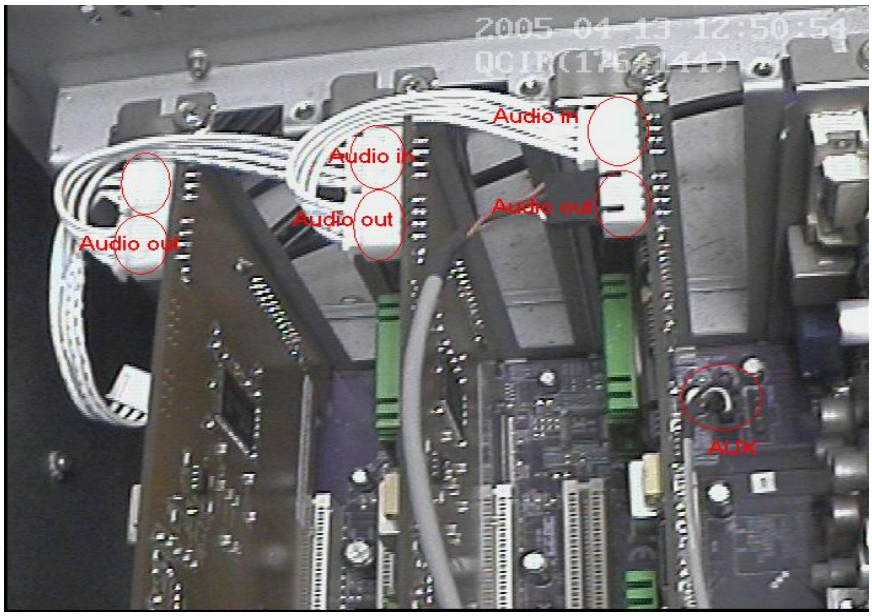
Other controls:

Key	Function
F1	System Help
Tab	Switch the camera channel
Page Down	Next screen
Page UP	Previous screen
F9	All cameras recording 30 Sec emergency

F11	Zoom in/out the single camera view
F12	Switch to Full screen mode (Equivalent to pressing space key except Instant Playback mode)
Ctrl + 0	Enter playback
Ctrl + 1-9	Instant playback minutes
Shift + 1-8	Select screen partition 1,4,9,16,25,36,49,64
WIN+ Z	Minimize the Main System window

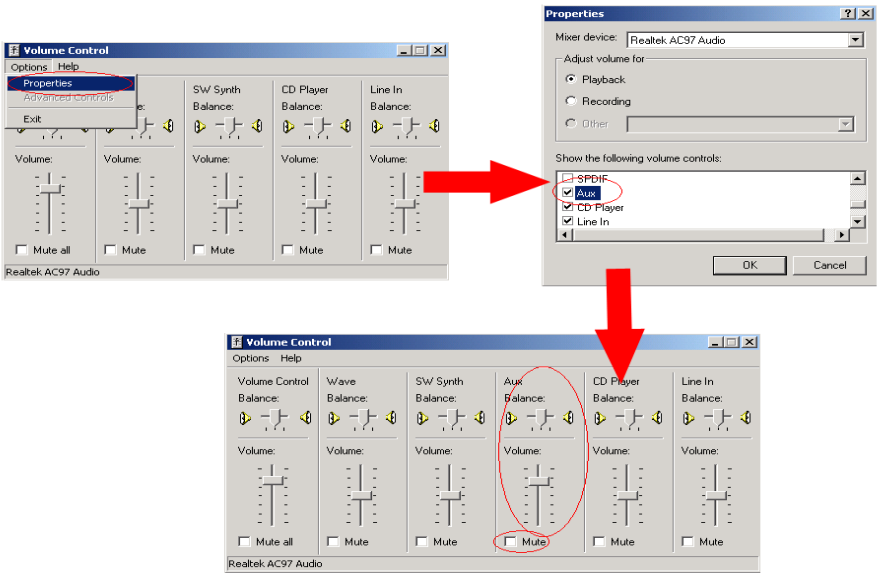
Appendix B: Audio preview

First, connect the card use the cable, as follows:



Note:

Sometimes there is no preview sound, Solution: double click the volume control of in the taskbar, open the properties dialog box, and check AUX control.

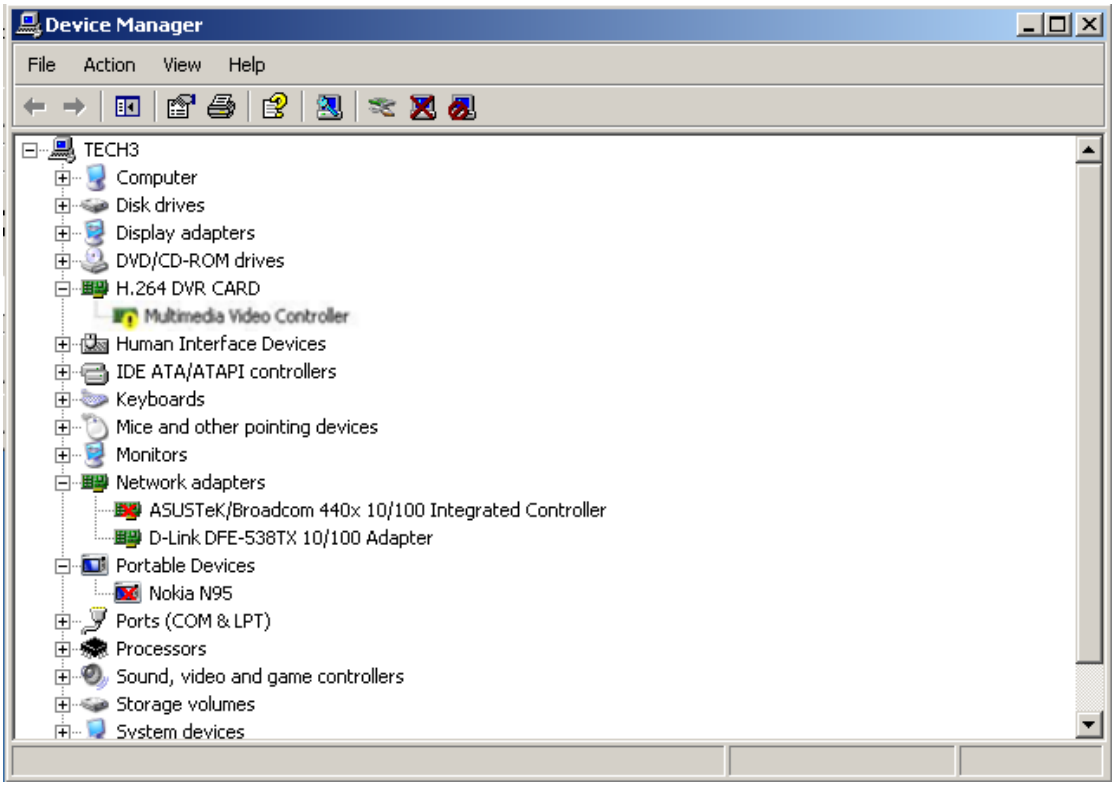


Appendix C: Driver Installation Manual

This manual is mainly talking about how to install drivers when there are WTE series cards in the same PC. WTE cards can be mix and match 4 channel can go with 8 channel to get a 12 channel system

Insert Cards

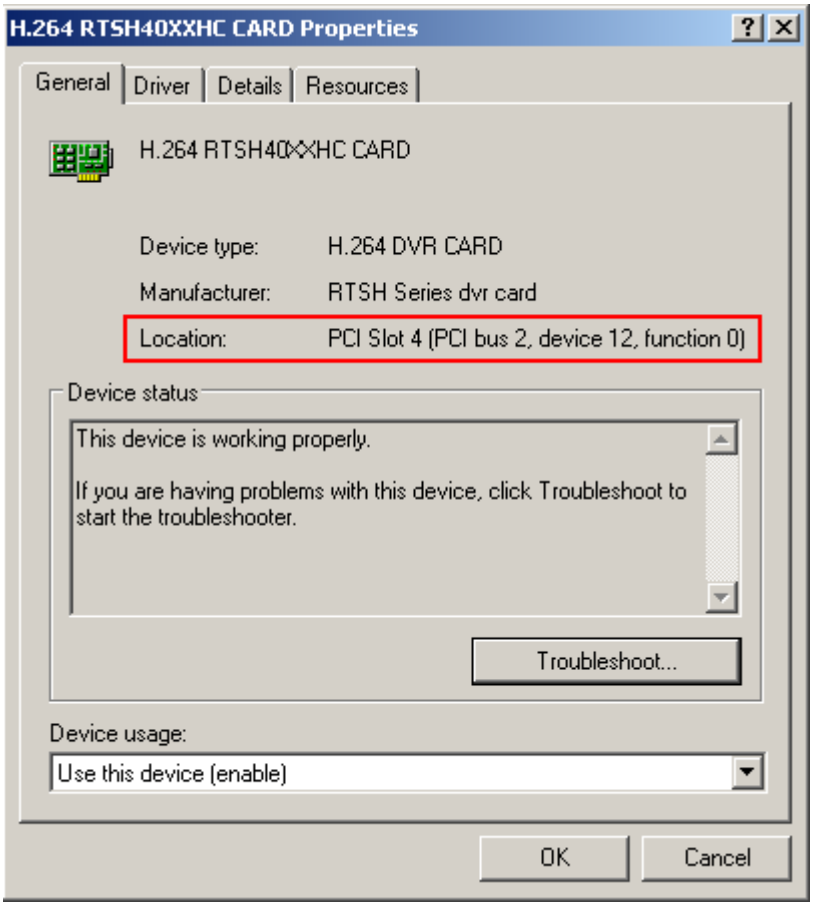
When you enter ***Device Manager***, you may see the following interface.



Check whether the drivers are correct

From the above picture you can see there is no W card driver installed and there is an exclamation mark in front of one of the drivers. Besides, you should single-right-click on other drivers' names one by one and select ***Properties*** to see whether the other drivers are installed correctly or not.

In windows XP, the driver location will be described as below (marked with red box):

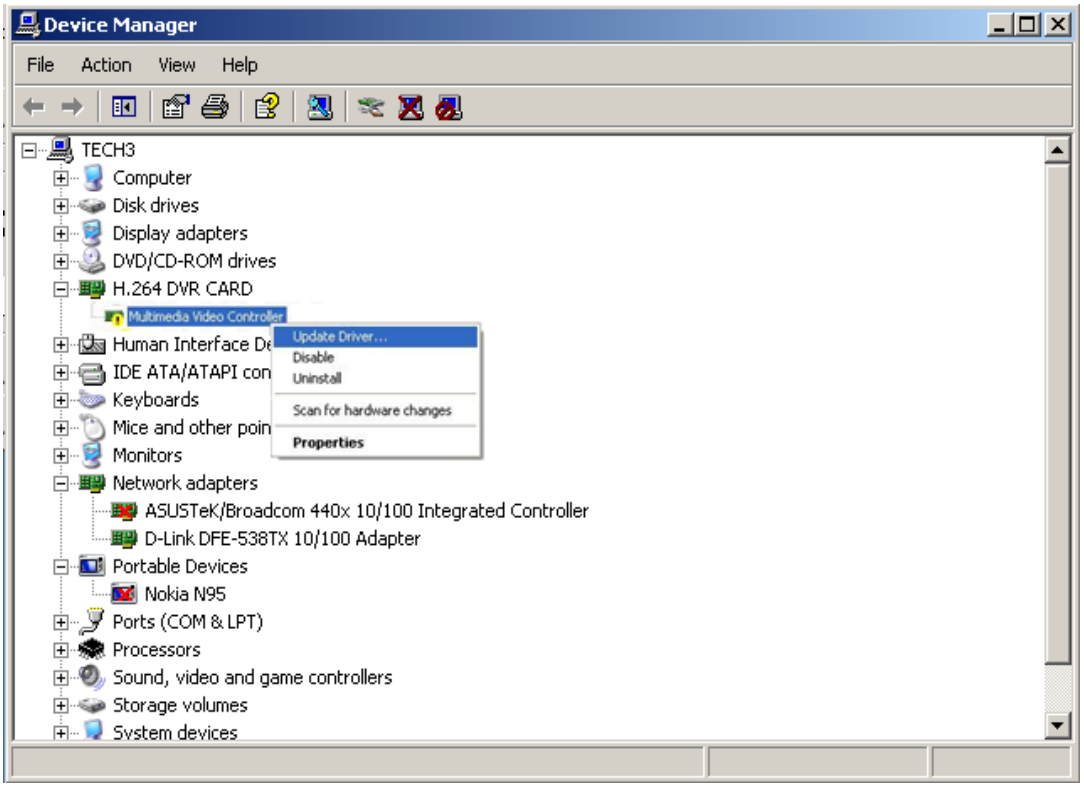


There is “PCI Slot X” displayed here so that you can locate different drivers according to the serial-number of slot.

Update the wrong drivers

Now we have to update the wrong drivers.

When there is an exclamation mark in front of the driver name, single-right-click on the name and select “Update Drive”. Then, follow the prompt to complete the operation.



When the driver is installed incorrectly, you should uninstall it first.

Then, single-right-click and select “Scan for hardware changes” to install the new driver manually.

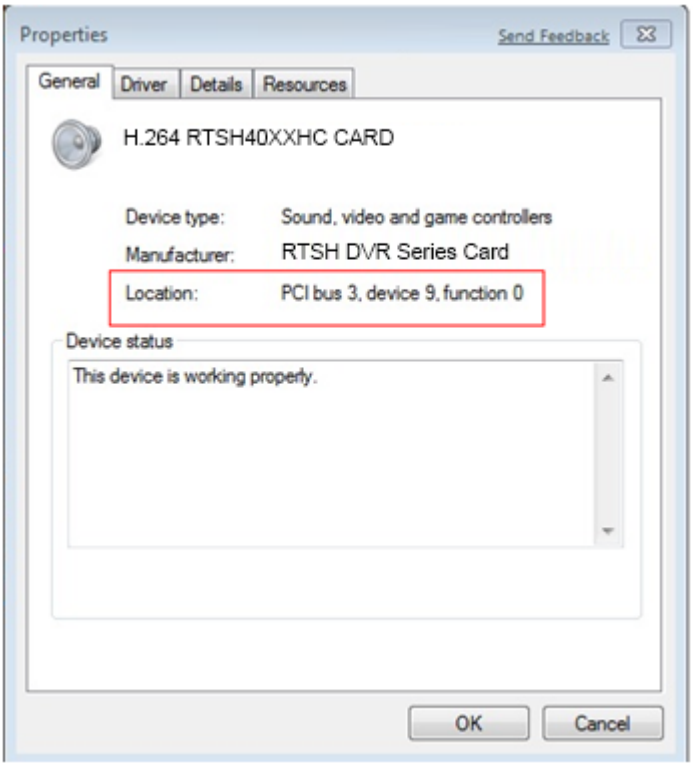
Sometimes, it will ask you for the location of your drivers. You should locate where the drivers are and select the right path to install the correct drivers.

When all the installations are done, you can see the interface as below:

In WIN7

Insert Cards and install drivers

In WIN7, when you single-right-click on one of the drivers’ names and enter its properties in Device Manager, its location will be described as below (marked with red box):



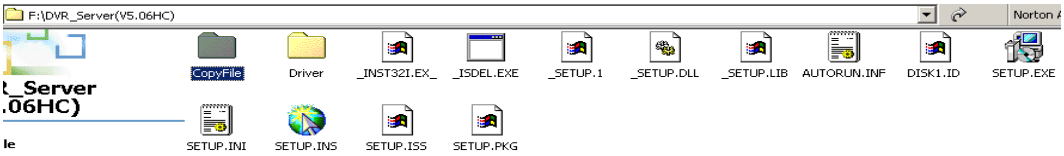
There is no “PCI Slot X” displayed here so that you can’t locate different drivers according to the serial-number of slot. As shown in the below picture,

Note:

When all the installations are done, insert the cards in the previous slots when the drivers are being installed. For example, WTE-RTSH is installed in the first slot when you are installing its driver. So when it is taken out and inserted back again, it should be in the first slot too.

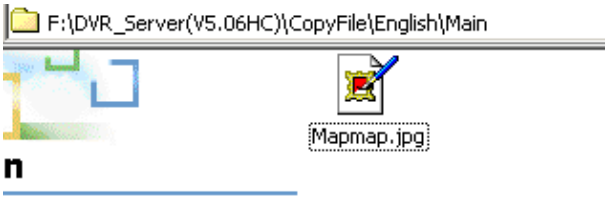
Appendix D: How to use “Copy File” folder

In installation CD, there is a file named “Copy File”.



If you want to replace some files in installation directory, you can copy new files into “Copy File”, when you finished the installation, the new files will replaced the old files.

If you want to replace some files in sub directory of installation directory, you can create the same directory in “Copy File” folder with the installation directory.



Thus, the all files which in “Copy File” will replace the old files when you finished the installation.

Note:

If you want to replace an image, the new image’s size and name should be the same with the old image.

Appendix E: Dual Monitor

Many customers are favor of dual monitor function for they can view clearer videos on the second monitor while operate on the main monitor without any barrier.

Now there are two work modes you can select to start dual monitor function: Stretch and Extend. We support multi-monitor in Extend mode actually.

Stretch Mode

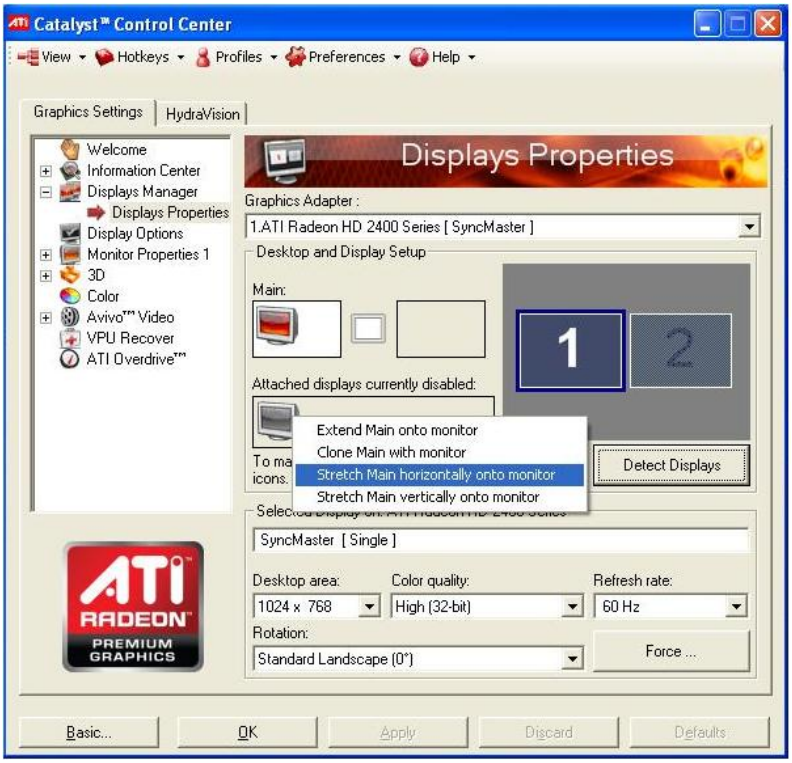
When there are more than one monitors connected to the PC with NDVR installed on it and when all the settings are done, NDVR will start dual monitor function automatically.

Setting Steps

The display card should support the dual monitor. Take ATI HD 2400 series display card as an example. First of all, you should connect two monitors to the display card.

Stretch Main onto Monitor

The system can detect another monitor automatically when it is connected. Then, you should set the desktop area of each monitor as “1024x768” and select “Stretch Main horizontally onto monitor”.



When it's done, the following interface will be displayed.

Set Resolution

The desktop area should be selected as 2048x768 while the original resolution of each monitor is 1024x768.

Note:

If the old ATI display card doesn't support "CATALYST Control Center", you should download ATI Catalyst and install it. Then you can enter the setting interface in ATI catalyst control center.

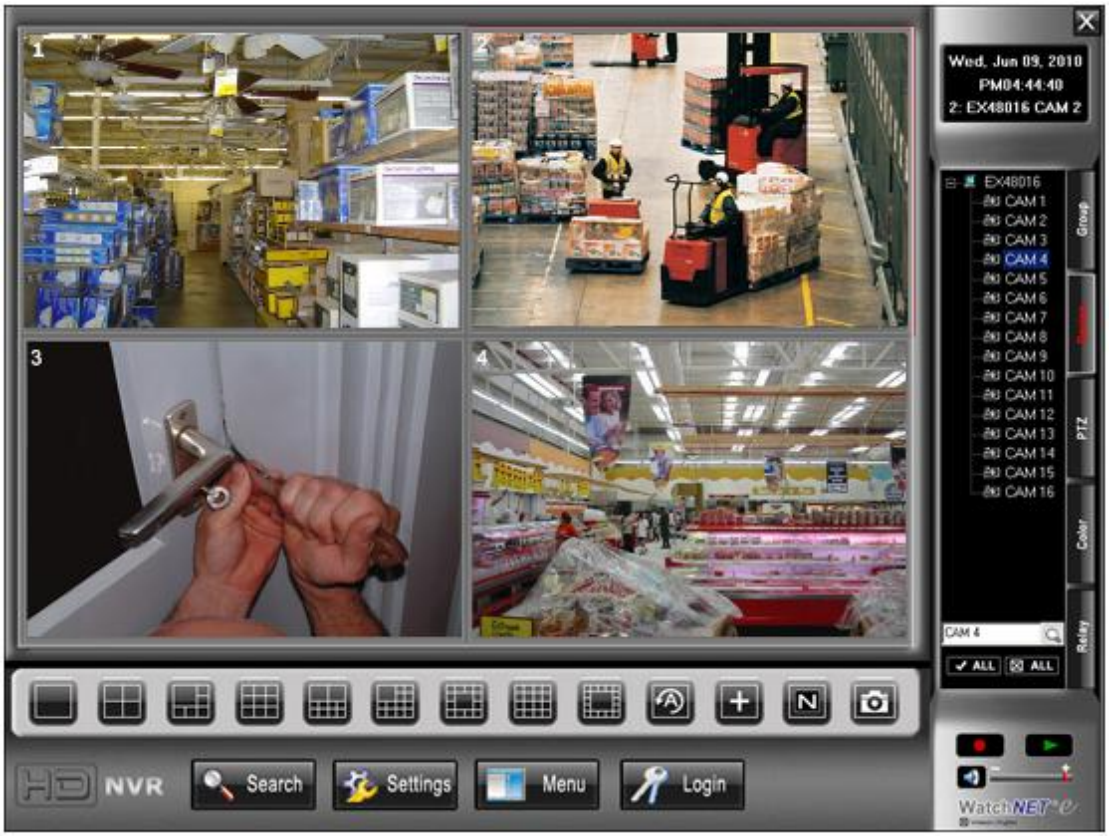
Now all the settings are done, you don't have to do other settings in the NDVR. Once NDVR runs, dual monitor function is effective.

Display and Operation

Preview

Display

In preview mode, when the number of view windows you select is smaller than the total number of cameras, then the remaining cameras will be displayed on the second monitor automatically. The interface is as below:



Also, when you double click one window to zoom in it, other cameras will be displayed on the second monitor. When all the cameras are shown on the main monitor, no camera will be displayed on the second one.

Operation

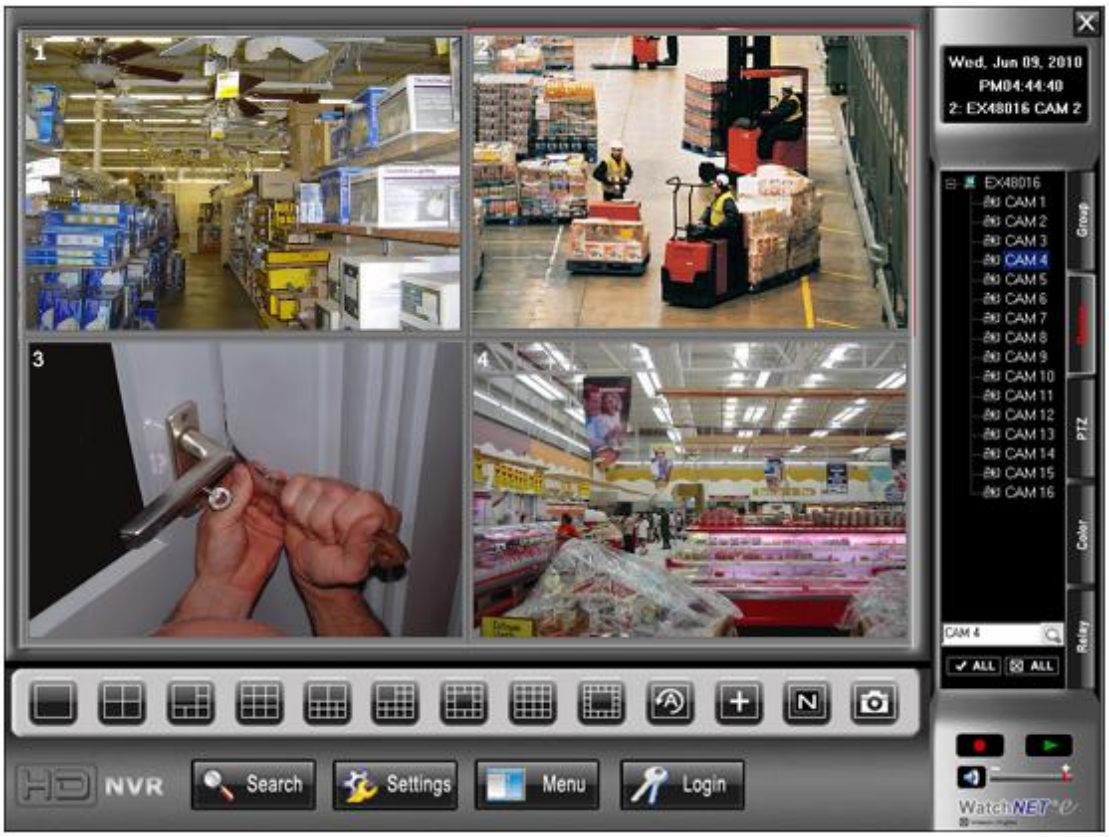
You can single–right-click on both main monitor and second monitor to do full screen display, instant playback, OSD adjustment, send to TV monitor and read IP register information.

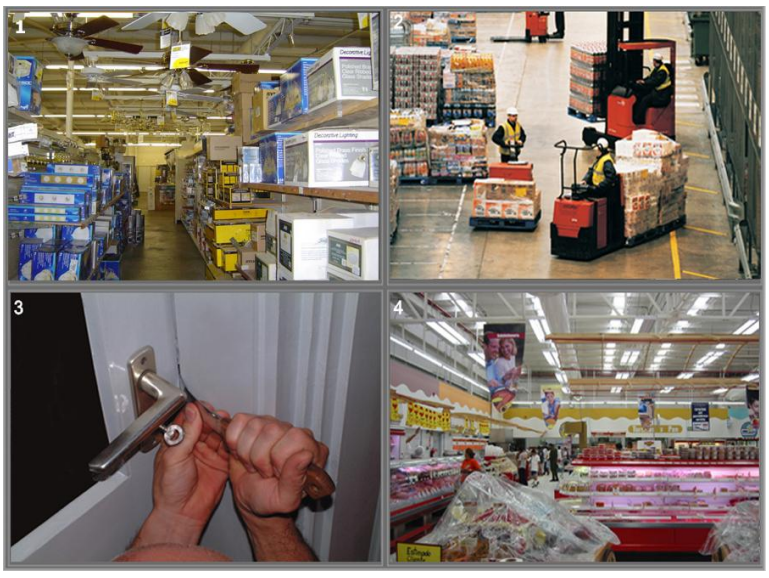
The operations are the same with single monitor. For details, please refer to our NDVR user manual.

Enter Playback

Display

When you are in the playback interface, all the cameras will be displayed on the second monitor automatically.





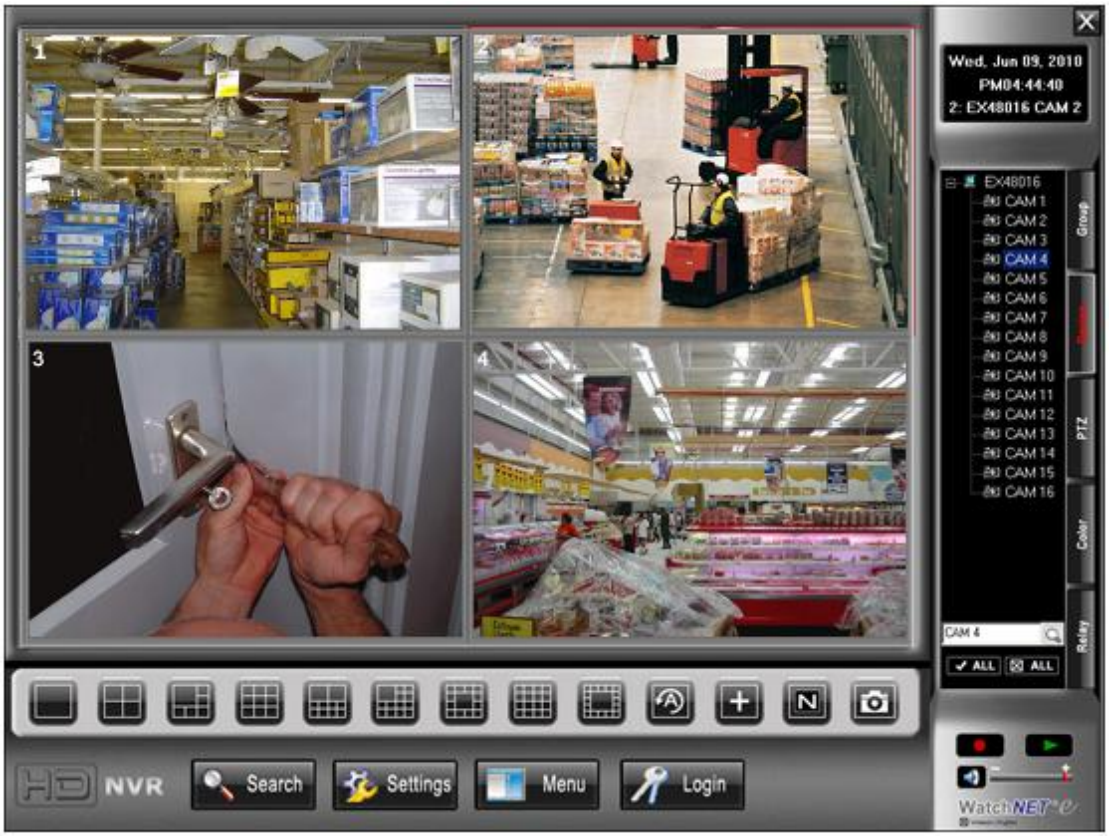
Operation

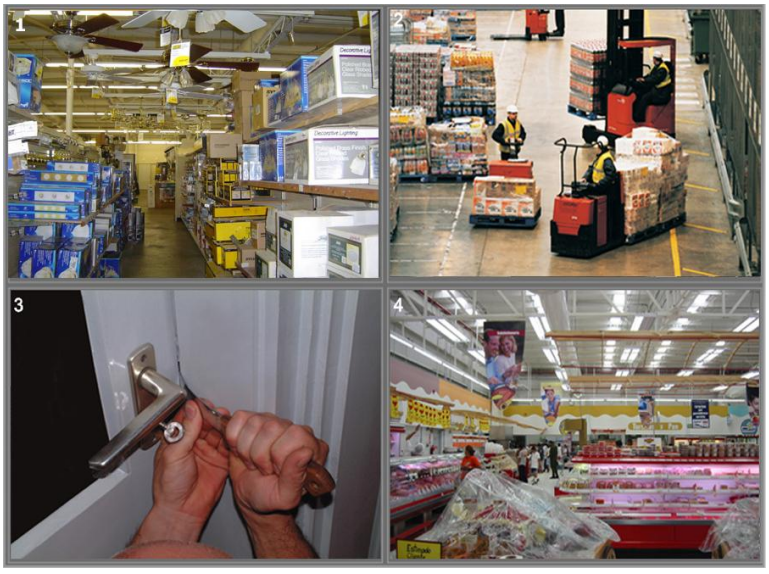
You can also do the operations as in the preview mode. Please refer to ***Preview*** for details.

Enter Setup

Display

When you are in the system setup interface, all the cameras will be displayed on the second monitor automatically too.





Operation

No operation is available. The setup interface will be always in front of all the other windows. So, every time you single-right-click on the second monitor to popup the menu, the setup interface will hide it again and again.

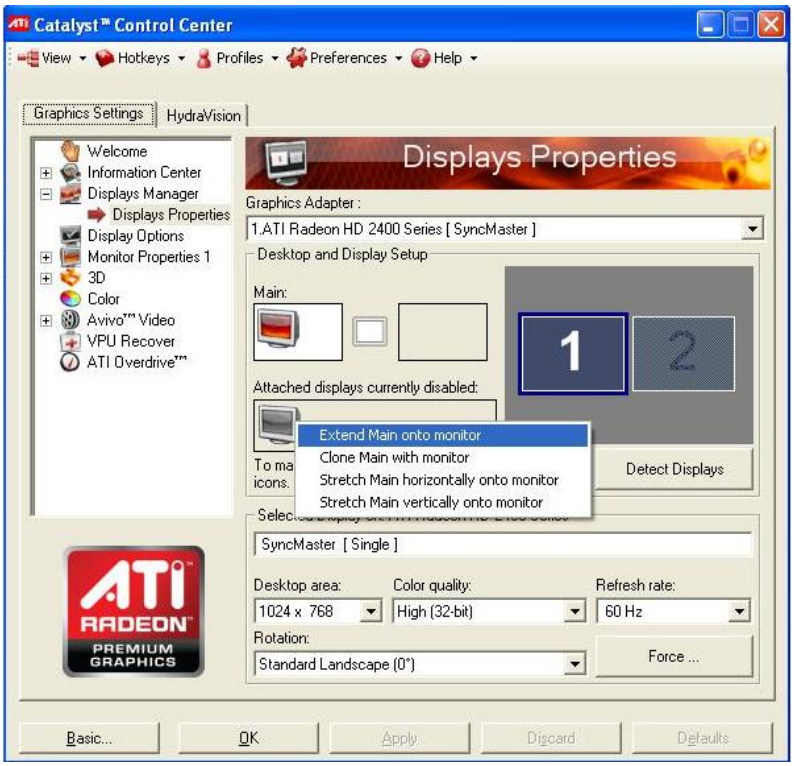
Extend Mode

Setting Steps

Also, take ATI HD 2400 series display card as an example. First of all, connect two monitors to the display card.

Extend Main onto Monitor

The system can detect another monitor automatically when it is connected. Then, you should set the desktop area of each monitor as “1024x768” and select “Extend Main onto monitor”.



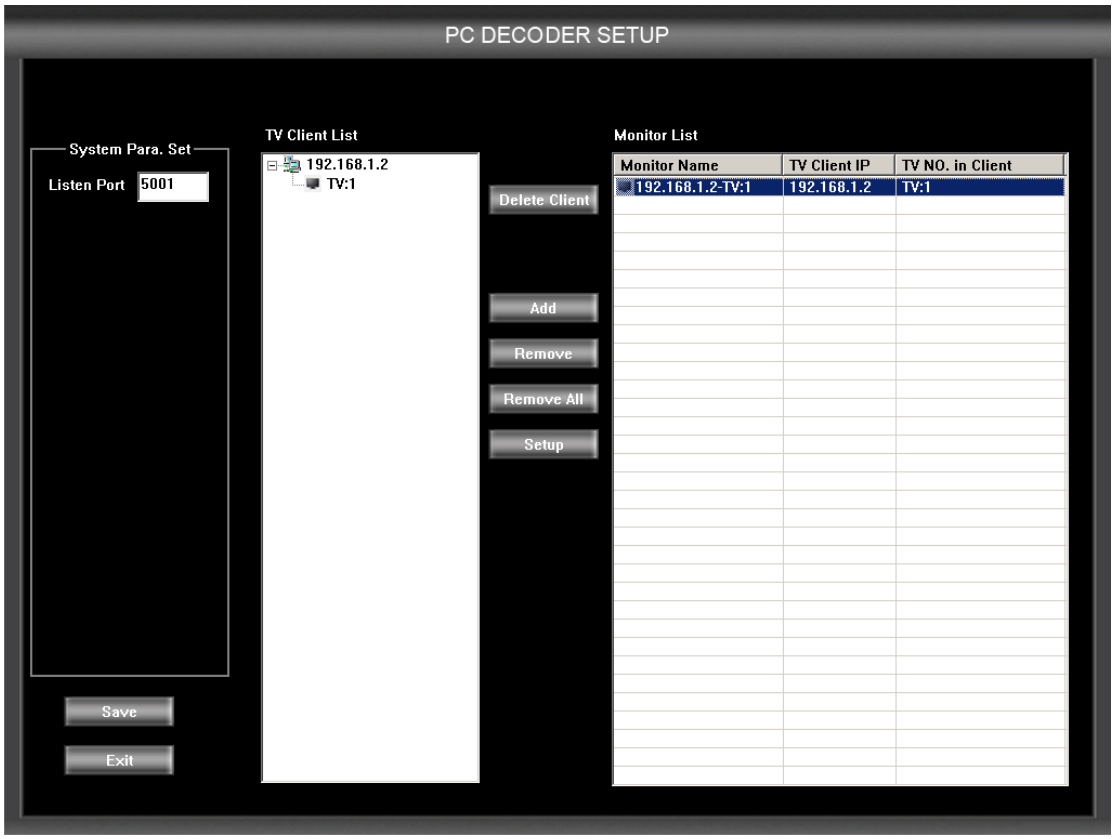
When it’s done, the following interface will be displayed.

You don't have to set ***Desktop area*** again.

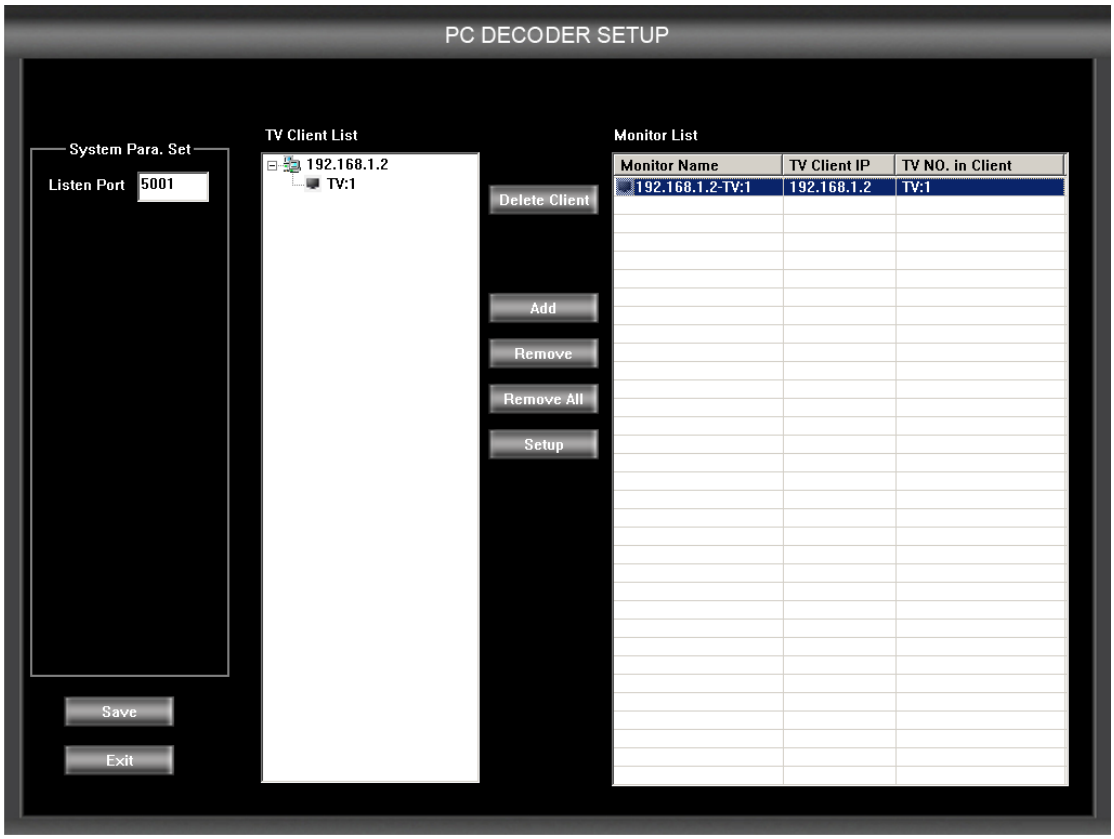
Settings in NDVR

When all the settings are done, run NDVR and then single-right-click on the main screen to enter ***Dual Monitor Setup***. If the second monitor is not connected or set correctly, the option will not be displayed.

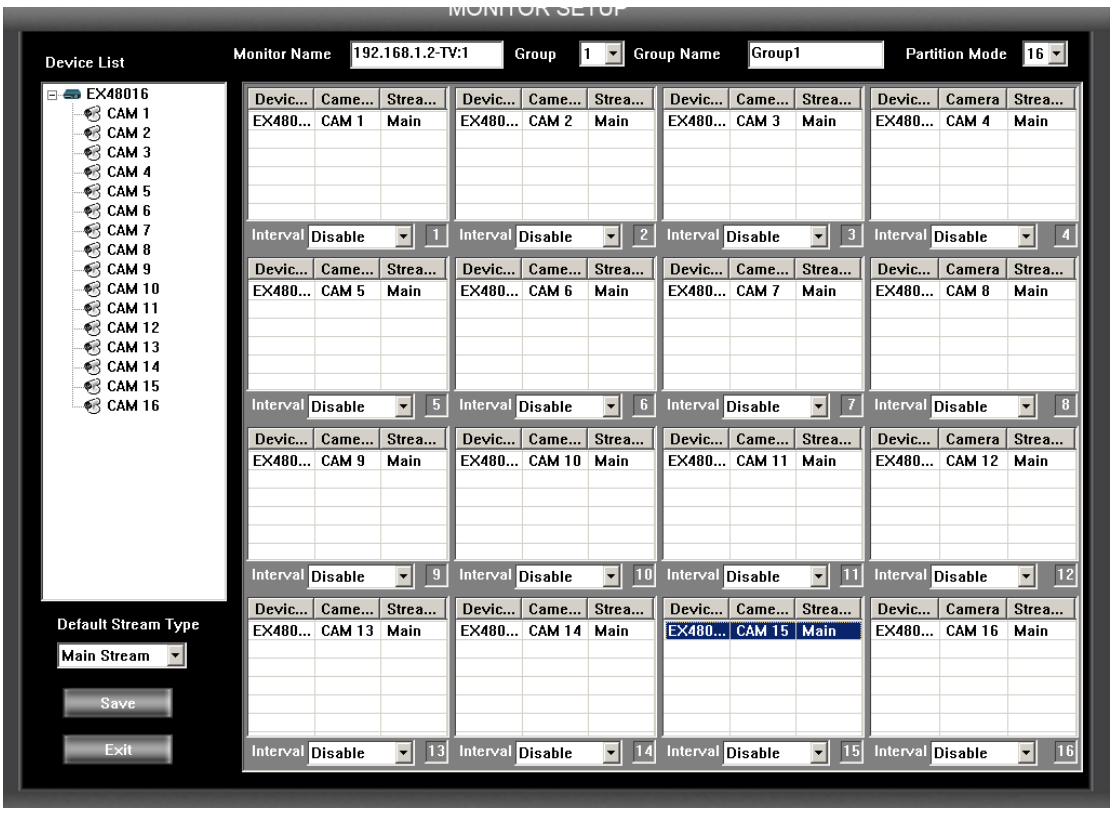
The interface is shown as below:



It is named as ***PC Decoder Setup*** because when there is a TV client on line and the NDVR IP is filled as the sever IP, the NDVR can detect it automatically and display the TV client IP in the ***TV Client List***. Here the IP "192.168.0.238" is the TV client IP.



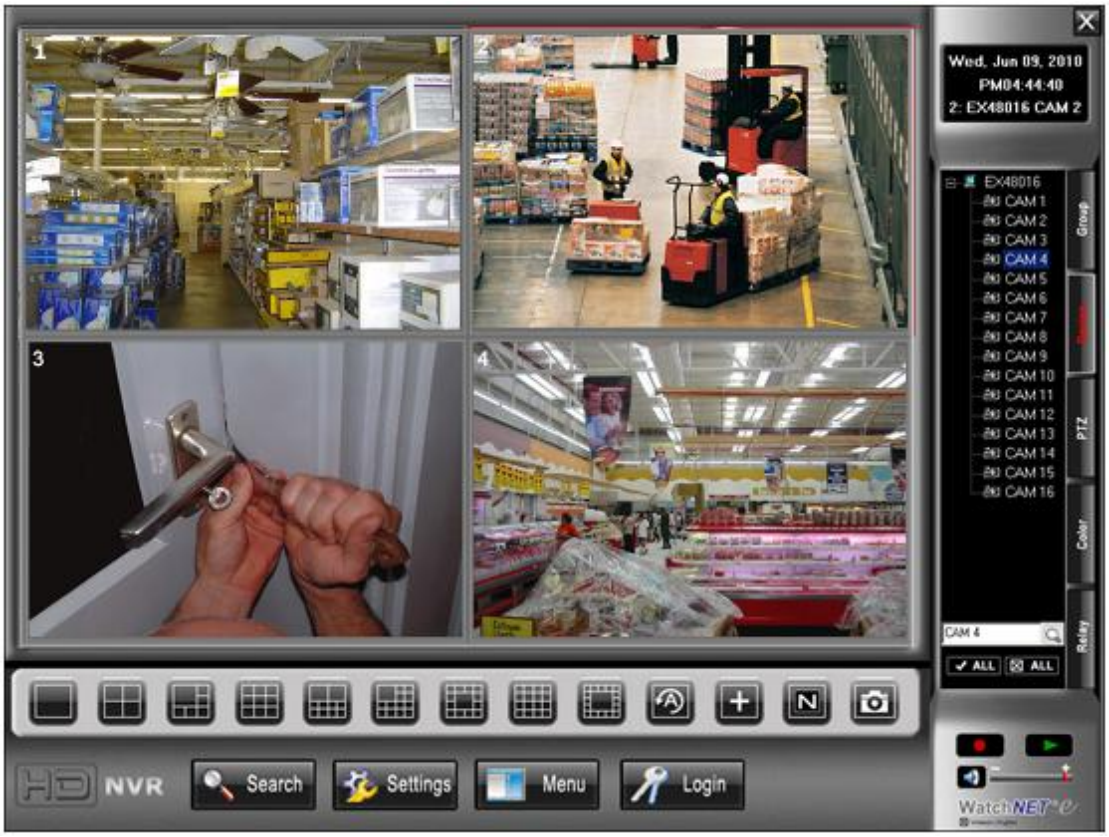
Double click the monitor name in the ***Active Monitor List*** or single click ***Setup*** button while a monitor is selected to enter ***Monitor Setup*** interface.



The operations are nearly the same with the operations in PC-Decoder. The only difference is you can't set more than one groups here. For more details about the operations, please refer to PC-Decoder manual.

Display and Operation

When all the settings are done, save and exit the setup. Then, you can see the interface as below:



Note:

The same with TV client of PC-Decoder, the number of partitions can be displayed on the second monitor is 16. Also, you can loop several cameras in one window. In other word, you can view as many as 16 cameras at the same time on the second monitor.

You can’t do any operations on the second monitor or any monitors of the TV clients. They are only used to view.

Appendix G: Sony Camera Setup

【**Date Time Format**】Select a suitable date time format from the drop-down list.

【**MPG4 Frame Rate**】Select the frame rate of the image. Selectable values are as follows: 1, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25 and 30fps.

【**MPG4 Bit Rate**】Select a suitable bit rate for camera from the drop-down list. Selectable values are as follows: 64, 128, 256, 384, 512, 768, 1024, 1536 and 2048kbps. The higher the values set, the higher the image quality when the network bandwidth is ok.

【**Adaptive Rate Control**】Adjusts the image frame rate or bit rate automatically to play smooth images to the connected computer environment. If ***On*** is selected, the MPG4 image rate is adjusted automatically.

【**Video Output Mode**】Select video output mode. When you select “IP only”, it will output via network only. Select “NTSC+IP”, it will output with NTSC signal and the image setting output from the network will be limited. When this mode is selected, Analogue video setting is enabled and set. So is “PAL+IP”.

【**Iris Open**】Select whether open the iris of the auto iris lens for focus adjustment.

【**Color**】Select Color or Monochrome for the image.

【**Camera Setting**】Select the gamma curve in the camera from the following 7 options according to the subject and shooting conditions: Standard, Scene 1, Scene 2, Scene 3, Scene 4, Scene 5 and Scene 6. “Standard” is suitable for many shooting conditions.

【**Image Quality**】Select a suitable image quality for camera.

【**Audio Input**】Select whether you are going to send the audio from the audio connector. Select “On” to send the audio from the network camera.

【**Audio Input Level**】Set the volume level of the audio input from the audio connector. It is adjustable from -10 to +10.

【**Audio Encode**】Select the bit rate when you send the audio from the audio connector. G.711 (64kbps), G.726 (40kbps), G.726 (32kbps), G.726 (24kbps) or G.726 (16kbps) can be selected.

【**Audio Upload**】Select whether enable to output the audio from the speaker.

【**Saturation**】Select the saturation in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest saturation.

【**Sharpness**】Select the sharpness in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest sharpness.

【**Contrast**】Select the contrast in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest contrast.

【**Custom Template**】When you select a custom template, ***Exposure compensation***, ***Backlight compensation*** and ***Gamma setting*** are set optimally depending on shooting conditions.

【**White Balance**】Select the white balance mode.

【**R/B Gain**】While ***White Balance*** is selected as “manual”, R gain and B gain become active. Selectable gain values are from 0 to 255.

【**Superimpose**】Select whether to superimpose ***camera ID*** and/or ***Date & Time*** on the image or not. The superimpose function does not work when JPEG image cropping is enabled.

【**Shutter Mode**】Select the type of shutter speed control. The selectable items depend on the ***Lens Type*** setting.

【**Min. Shutter Speed**】Select the minimum value of the auto slow shutter from the drop-down list. Selectable shutter speeds are 1, 1/2, 1/4, 1/8 and 1/15 second.

【**Shutter Speed**】Select the shutter speed of the camera from the drop-down list. Selectable shutter speeds are 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000 and 1/10000 second. When you select 1, 1/2, 1/4, 1/8 and 1/15, ***Fixed Gain Value*** becomes active. When you select 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000 and 1/10000, ***Auto Gain Max. Value***, ***Exposure Compensation*** and ***Backlight Compensation*** become active.

【**Fixed Gain Value**】Select the fixed gain value from the drop-down list. When you select 0 dB, gain up is not performed.

【**Auto Gain Max. Value**】Select the maximum gain value for auto exposure setting from the drop-down list. When you select 0 dB, gain up is not performed. When you select 0 dB, gain up is not performed.

【**Exposure Compen.**】Select the exposure compensation value from the drop-down list and adjust the brightness of auto exposure setting. It is brighter when a larger value is selected, and it is darker when a smaller value is selected. Selectable values are as follows: +3.0, +2.6, +2.3, +2.0, +1.6, +1.3, +1.0, +0.6, +0.3, 0, -0.3, -0.6, -1.0, -1.3, -1.6, -2.0, -2.3, -2.6, -3.0(EV).

【**Backlight Compen.**】Select the backlight compensation. You can select from ***Normal***, ***Spot*** and ***Off***.

Normal: The camera judges the backlight situations on the whole image. If the image is under backlight situation, the camera compensates the exposure automatically for a brighter image.

Spot: The camera judges the backlight situations in the center of the image. If the image is under backlight situation, the camera compensates the exposure automatically for a brighter image. Select this option when the center of the image is especially monitored.

Off: The camera does not perform the exposure setting according to the backlight situations.

Note:

When you set ***Normal*** or ***Spot*** in the backlight compensation, hunting may be generated depending on the situations. In this case, set it to ***Off***.

Exposure

【**Camera ID**】Checking this box allows you to superimpose the specified characters. Enter up to 20 characters.

【**Date Time**】Checking this box allows you to superimpose the date and time.

【**Style**】Select the style of the superimposed item between ***Border*** and ***Background***.

【**Position**】Select the position of the superimposed item among ***Top-left***, ***Top-right***, ***Bottom-left*** and ***Bottom-right***.

【**Sensor Input Mode**】Specify the detection mode of the signal input to the sensor input terminal of the camera.

Normally Open: Detect alarm when the sensor input is short-circuited.

Normally Close: Detect alarm when the sensor input is open-circuited.

【**Light Funnel Mode**】Select Light funnel mode. There are 6 modes. However, switch between normally open and normally closed is the most commonly used.

Auto: Normally works in Light funnel off. It switches automatically to Light funnel on in a dark place.

Timer: Set the Light funnel on/off using the timer.

【**Threshold**】Select ***High*** or ***Low*** for the brightness to switch the Light funnel on.

【**Hold Time**】Select 2 sec. or 30 sec. for the response time to switch to the brightness level.

【**Status**】Shows the current status of Light funnel function.

【**Alarm Output NO.**】The alarm output menu consists of two tabs: ***Alarm Out 1*** and ***Alarm Out 2***.

【**Alarm Output Switch**】Select whether alarm output or not.

【**Alarm Output**】Select the mode of the alarm output function.

Alarm: Controls alarm output synchronizing it with an external sensor input or the built-in motion detection function. When ***Alarm*** is selected, the items ***Sensor input***, ***Motion detection***, ***Alarm duration*** and ***Effective period*** become active.

Timer: Controls alarm output using the timer.

【**Sensor Input**】Select this option when you link the alarm output to an external sensor that is connected to sensor input of the camera I/O port.

【**Motion Detection**】Select this option when you link the alarm output to the motion detection function.

【**Alarm Duration**】Select the duration for which the alarm output is short circuited between 1 and 60 sec.

【**Effective Period**】This item becomes active when Mode is set to Alarm. Set the period during which the alarm detection is effective.

Always: The alarm detection is always effective.

Schedule: You can specify the period during which alarm detection is effective. Click ***Schedule*** and the menu for the effective period is displayed.

Trigger Alarm Output

【**Trigger Alarm**】Select the alarm output control mode from Toggle or Timer.

Toggle: Switch between ***On*** (short circuit) or ***Off*** (open).

Timer：By default, the alarm output is switched to ***On*** (short circuit), and will automatically switched to ***Off*** (open) after the time specified in ***Duration*** has elapsed.

【**Voice Alert NO.**】The Voice alert menu consists of 3 tabs: ***Voice alert 1***, ***Voice alert 2*** and ***Voice alert 3***. You can configure an individual audio file on each tab.

【**Voice Alert Switch**】To use the voice alert function linked with the sensor input or the motion detection function, select ***On***.

【**Voice Alert Repeat**】Select playback repeat time from 1 to 3.

【**Image Memory**】To use the image memory function, select ***On***.

【**Built-in Memory**】The current memory space of the built-in memory is displayed.

【**Over Write**】Select ***On*** to overwrite the file or not when there is insufficient memory space to record the image in the built-in memory.

On: Overwrite is enabled and old files will be overwritten in the order of date.

Off: Overwrite is prohibited. No recording will be performed.

【**Capacity Warning**】Select ***On*** to send a warning mail to the Administrator when the memory space of the built-in memory is low or the memory is full. Select ***Off*** if you do not want to send a warning mail.

Note:

When Overwrite is set to ***On***, the warning mail will not be sent to the Administrator.

【**Alarm Recording**】Select ***On*** to record the image and audio file in the built-in memory linked with alarm detection.

【**Image File Name**】Type the file name you want to assign to the images to be recorded. You can use up to 10 alphanumeric characters, - (hyphen) and _ (underscore) for naming.

【**Suffix**】Select a suffix to be added to the file name.

【**Sequence Number Clear**】Click Clear to reset the Sequence number suffix to 1.

【**Alarm**】Select the alarm to be linked with the recording of image and audio files.

Sensor input: The external sensor that is connected to sensor input of the camera I/O port.

Motion detection: The alarm by the motion detection function.

【**Effective Period**】Set the period during which alarm detection is effective.

Always: The alarm detection is always effective.

Schedule: You can specify the period during which alarm detection is effective. Choose ***Schedule*** and the setting menu for the effective period is displayed.

【**Periodical Recording**】Select ***On*** when you want to use periodical recording.

【**Periodical Mode**】Select the periodical recording mode.

Periodical mode: An image file is recorded periodically according to the specified Interval and Effective period.

Tour mode: An image file is recorded when the camera is moved to each preset position during the tour.

Note:

You cannot record files in Tour mode while PTZ on motion detection is performed.

【**Periodical Interval**】Type the interval at which you want to record an image in the memory periodically. You can set the hour (H), minutes (M) and seconds (S) between 1 second and 24 hours (one day).The actual interval may be longer than the set value depending on the image size, image quality, bit rate, or recording media.

Motion

【**Threshold setting slider bar**】Set the threshold level of motion detection that is common to all the windows. The threshold level is used to judge whether or not there has been any motion in the camera image. When the motion of an object on the monitor screen has exceeded the threshold level, the camera judges that there has been a motion and a green frame is shown. An alarm is output when a green frame is added to the object displayed in one of the active windows.

【Object size】Select the minimum size of a detectable object. Select the minimum size of a detectable object from L (Large), M (Medium) and S (Small). Each option represents the corresponding size below:

***L*:** 64 × 64 dots

***M*:** 32 × 32 dots

***S*:** 16 × 16 dots